

The January 1986 Whooper Swan census in Britain, Ireland and Iceland

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Introduction

The great majority of Whooper Swans *Cygnus cygnus cygnus* wintering in Britain and Ireland are from the Icelandic breeding population, very few birds from Siberia crossing the North Sea (Owen *et al.* 1986). Boyd and Eltringham (1962) suggested that the British total in November did not exceed 4000. Hutchinson (1979) estimated the Irish wintering population at 4000–6000. Brazil and Kirk (1979) obtained a total of 6765 in Britain and Ireland in November 1979. The numbers in Iceland were estimated at 12,557, 13,686, and 14,247 in early October 1982, 1984, and 1985 respectively (Gardarsson & Skarphedinsson 1984; A. Gardarsson *in litt.*). This report presents the results of the first full census including Britain, Ireland and Iceland.

Methods

The census was organised by the Wildfowl Trust on 11–12 January 1986, coinciding with the International Waterfowl Research Bureau's annual waterfowl census (see Rüger *et al.* 1986). Counts made up to a week either side of the set weekend were accepted where no other data were available.

Coverage in Britain was based on the volunteer network of the Wildfowl Trust's National Wildfowl Count scheme (see Owen *et al.* 1986), additional observers being recruited for areas not surveyed by the regular counts. The authors themselves visited the northwest mainland of Scotland from 8–14 January. Comprehensive coverage of Ireland was arranged by C. W. Murphy of the Royal Society for the Protection of Birds' Northern Ireland Office and O. J. Merne of the Irish Forest and Wildlife Service, with help from the Department of Environment for Northern Ireland, the Irish Wildbird Conservancy, and numerous volunteer observers. The Irish results are discussed by Merne and Murphy (in press). The Icelandic counts

were arranged by Prof. A. Gardarsson of the University of Iceland.

As well as the numbers of adult and cygnet Whooper Swans presented here, brood sizes, habitat details and the usage of the site were recorded. These other aspects will be discussed in another paper. Mute *Cygnus olor* and Bewick's *C. columbianus bewickii* Swans present were also recorded.

Results and discussion

The temperature in early January was below freezing over much of Britain and Ireland. By mid-January conditions were milder but many inland waters remained frozen. Between 10 and 12 January westerly gale to storm force winds prevailed.

Table 1 presents the numbers of Whooper Swans recorded in each area and region. The total of 16,700 is the largest count of this population recorded. The proportion of young at 22.9% is similar to the overall mean between 1948 and 1984 of 19.6% (range 5–26%) (Boyd & Eltringham 1962; Brazil & Kirk 1979; Gardarsson & Skarphedinsson 1984; A. Gardarsson *in litt.*). Owen *et al.* (1986) report that the number in Britain increased at a rate of 6% per annum from 1970 to 1979, and suggest that this was due to a decrease in mortality rate. The apparent increase in numbers in 1986, however, is probably also due to the comprehensive coverage achieved. Ireland, in particular, has never been so thoroughly recorded, although the high count there could be partly the result of birds leaving Scotland during the cold weather of early January, a tendency noted by Black and Rees (1984). Previous censuses of Britain and Ireland alone have been held in November, when such movements have still to take place and migration from Iceland has probably not finished.

The major concentrations were at the following sites: Upper Lough Erne, Co. Fermanagh (876); Lough Foyle, Co. Londonderry (404); Strabannan, Co. Louth (371); Wilkinstown, Co. Meath (367); Ouse

Table 1. Numbers of Whooper Swans counted in Britain, Ireland and Iceland, January 1986.

BRITAIN		IRELAND	
Region	No. of Whoopers	Region	No. of Whoopers
N.E. SCOTLAND		NORTHERN IRELAND	
Shetland	90	Down	161
Orkney	278	Antrim	100
Caithness	129	Armagh	238
Moray Basin	385	Derry	835
Grampian	113	Tyrone	43
Rest	33	Fermanagh	986
TOTAL (% young)	1028 (25.8)	TOTAL	2363 (16.7)
N.W. SCOTLAND		REPUBLIC OF IRELAND	
Harris/Lewis	20	Donegal	1325
N. Uist	93	Leitrim	70
Benbecula	46	Monaghan	569
S. Uist	295	Cavan	402
Barra	12	Mayo	648
Skye	25	Sligo	192
Mainland west coast	46	Roscommon	585
TOTAL	537 (24.1)	Galway	749
E.C. SCOTLAND		Clare	318
Tayside	97	Longford	25
Fife	91	Louth	470
Central	120	Westmeath	315
Lothian	130	Meath	504
TOTAL	429 (23.0)	Dublin	11
CLYDE BASIN		Offaly	140
Tiree	62	Kildare	160
Argyll/Bute	48	Wicklow	124
Strathkelvin	117	Tipperary	402
Lanark	140	Kilkenny	66
Rest	160	Wexford	177
TOTAL	527 (17.3)	Kerry	134
SOLWAY BASIN		Cork	185
Dumfries & Galloway	570	Limerick	111
Cumbria	311	Waterford	261
TOTAL	881 (17.2)	TOTAL	7943 (25.1)
N.W. ENGLAND/N. WALES		TOTALS:	
Lancs./Gt. Manchester	337	Britain	5136
Gwynedd	143	N. Ireland	2363 (14.1)
TOTAL	480 (17.1)	Rep. of Ireland	7943 (49.4)
S.E. SCOTLAND/ N.E. ENGLAND		Iceland	1300
Borders	436	GRAND TOTAL	
Northumberland	116	16742 (22.9	
Tyne & Wear	100	%	
Rest	3	young)	
TOTAL	655 (26.9)		
S. ENGLAND/S. WALES			
Yorkshire	181		
Norfolk	345		
Rest	62		
TOTAL	588 (23.8)		

Washes, Norfolk/Cambs. (341); Glen Lough, Cos. Westmeath/Longford (310); Wigtown Bay, Dumfries & Galloway (272); Lough Beg, Cos. Antrim/Londonderry (267); Nisbet, Borders (251); Little Brosna, Cos. Offaly/Tipperary (241); Martin Mere, Lancashire (207); Fearn, Highland (195); Low Crosby, Cumbria (192). All of the above places would qualify as internationally important (regularly holding at least 1% of a recognised population) if these numbers were maintained.

We consider the total of 16,700 to be an accurate reflection of the numbers present in Britain, Ireland and Iceland in January 1986. The great majority of the counts were carried out on a single day, 12 January, so under- or over-recording due to movements will have been minimal. It has frequently been suggested that the slightly isolated wintering groups of Whooper Swans in East Anglia belong to the Siberian breeding population. There is, however, evidence from marking that at least some of those at Welney, Norfolk (where the Ouse Washes birds were concentrated) are of Icelandic origin (Brazil 1983; E. C. Rees, pers. comm.). The low return from the rest of East Anglia, coupled with the absence of an easterly airstream in the weeks prior to the census, suggest that only a tiny proportion

of the total, if any, belonged to the Siberian breeding population. The count of 14,247 found in Iceland in October 1985 (A. Gardarsson *in litt.*) was clearly incomplete.

The importance of including Iceland in any future winter censuses was demonstrated by the high return from that country. The shortness of the day length there in midwinter, however, makes that time inconvenient for censusing. This factor, coupled with the likelihood of severe weather hampering fieldwork throughout the range, means that future censuses might be better held in autumn or late winter, despite the fact that this would probably miss the peak numbers in both Britain and Ireland. The lack of coincidence with the International Waterfowl Census would not be serious if the entire Icelandic population was censused.

Summary

A total of 16,700 Whooper Swans *Cygnus c. cygnus* was counted in mid-January 1986 representing the whole of the Iceland-breeding population. Coverage was good in all areas, and probably accounts for much of the apparent increase over previous censuses.

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