

## A PRELIMINARY ASSESSMENT OF DARK-BELLIED BRENT GOOSE BREEDING SUCCESS. 1986

A report to the Nature Conservancy Council.

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### SUMMARY

The 1986 breeding season for Dark-bellied Brent Geese *Branta bernicla bernicla* appears to have been virtually a complete failure. No young were found among more than 7,900 individual birds aged in Britain up to 20th October, and only one juvenile has been reported from the Continent. The early autumn numbers at Foulness were about normal, but elsewhere they were very high, especially on the south coast. On the basis of former data, I predict that the peak numbers in the whole population this winter will be approximately 163,000, with 64-96,000 - probably in the region of 77,000 - in Britain, depending on the severity of the winter.

### INTRODUCTION

This is the second year that a report providing a preliminary assessment of the breeding success of Dark-bellied Brent Geese has been produced, under the Nature Conservancy Council's long-term contract with the Wildfowl Trust for the monitoring of wildfowl numbers in Britain. The methods used are along the same lines as in last year's report, by M.A.Ogilvie, using the results of sample age counts at a number of major resorts by expert observers (from the regular National Wildfowl Count network and/or NCC and Wildfowl Trust staff). Observers were asked to note the number of birds present, how many were aged and the number of young found, as well as the sizes of any broods, on special forms. Information was also obtained from mainland Europe, in cooperation with the International Waterfowl Research Bureau at Slimbridge.

### RESULTS

The first report of Brent from Foulness was of 113 on 17th September; by 21st there were 1,267 on the island, with 310 at the nearby Two Tree Island, Leigh, and 421 at Canvey Point (A.J. Shone). A sample of 1,000 birds aged out of 8,000 present at Foulness on the weekend of 27th/28th September contained no young and set the pattern for all subsequent reports to date; no young birds at all had been found in Britain by 20th October. Full details of the sample age counts and their sources are given in Table 1. It is not possible to say how many different individual birds were aged, because of possible movements, but it is considered that the minimum number was 7,900 out of a total aged sample of 23,994. Abroad, the picture was almost the same: no young were found among 2,000 aged in Denmark (J. Madsen), but a sample of 2,000-2,500 in France contained a single juvenile (R. Maheo). No young were found among "several thousand" aged by reliable observers in the Netherlands. Observations are continuing on Texel, but it is considered that even if young were to arrive later, they would have done so by now (B. Ebbinge). In

Schleswig-Holstein, 50,000 were present on the *Zostera* beds by mid-October, but no young were found in the samples aged (P. Prokosch).

The size and timing of the arrival on Foulness appears to have been normal; the first count of 113 on 17th September compares with 34 on 15th September 1985, while the 9,000 found on 12th October 1986 compares with 10,295 on 13th October 1985. On parts of the south coast, however, there were unprecedented numbers for the early part of the season. In Langstone Harbour 3,000 were found on 28th September and 8,570 on 18th October, compared with 1,250 on 12th October and 7,850 on 15th November last year. On the north Solent - a much less important area - the October numbers were only slightly above normal, with 470 at Lepe, near Beaulieu, and 79 at Keyhaven on 17th October. In Norfolk 35 were present at Scolt Head as early as 19th September and 700 by 25th September. A bird neck-collared in East Germany, probably in spring 1985, was found at St. Osyth, Essex on 15th October.

Table 1. The numbers of Dark-bellied Brent Geese aged in Britain up to 20th October 1986. (No young found on any occasion.)

DATE	PLACE	TOTAL PRESENT	TOTAL AGED	OBSERVER
19.9	Norfolk: Scolt Head	35	35	CRGC
21.9	“ “ “	60	60	“
25.9	“ “ “	700	500	“
27.9	Essex: Foulness	8000	1000	AKMStJ
28.9	Hants: Langstone Harbour	3000+	811	CRT
2.10	Norfolk: Scolt Head	767	67	CRGC
4.10	Sussex: Chichester Harbour	1500	202	CRT
5.10	Hants : Langstone Harbour	3000	1000	DFB
6.10	Norfolk: Scolt Head	767	90	CRGC
10.10	Hants: Lepe	43	43	EJW
11.10	Sussex: Chichester Harbour	2-3000	460	CRT
	Hants: Langstone Harbour	3000	520	DFB
12.10	Essex: Foulness	9000	6000	AKMStJ
	Norfolk: Scolt Head	900	450	CRGC
13.10	Hants: Lepe	50	50	EJW
15.10	Essex: Foulness	4600	4100	RK
15.10	Essex: St.Osyth	140	140	BCM
16.10	Essex: Leigh	1800	1500	RK
17.10	Hants: Lepe	474	474	EJW
	Hants: Keyhaven	79	79	EJW
18.10	Sussex: Chichester Harbour	?	151	MO
	Hants: Langstone Harbour	8570	6000	DFB
	Hants : Lymington	70	70	EJW
19.10	Essex: St.Osyth	153	53	SC
20.10	“ “	120	20	BCM
	Norfolk: Scolt Head	1100	270	CRGC

Reporters: R.W.Arthur, D.F.Billett, C.R.G.Campbell, Dr S.Cox, R.King, B.C.Manning, Dr M.Owen, A.K.M.St.Joseph, C.R.Tubbs, E.J.Wiseman

## DISCUSSION

1986 saw the subspecies' fifth breeding failure or near-failure in the last ten years. Some young birds may possibly yet be found following the normal pattern of juveniles migrating later. An adverse westerly airstream has prevailed for most of September and October this year, which may have held up any families, but a lack of juveniles in the Netherlands by early October or in Britain by 20th October would normally suggest that very few were going to arrive.

Bart Ebbinge in the Netherlands reports that the condition of the Brent leaving that country in the spring of 1986 was the best on record. He understands from A.A. Vinokurov of the USSR Research Institute on Nature that there was an expedition to the Taimyr Peninsula to census geese this summer. The IWRB is writing to Vinokurov (who has attended many IWRB meetings) in the hope of obtaining some results from this work. We may thereby discover what conditions were like on the breeding grounds this year.

Table 2 shows the annual breeding success and subsequent wintering numbers of Dark-bellied Brent Geese over the last ten years. In years of breeding failure the average mortality has been 14%. Using this figure, and assuming that 1986 was indeed a complete or near complete breeding failure, a total of 163,000 is predicted for this winter's peak European population. The number that will reach Britain depends partly on the severity of the winter on the Continent. The proportion of the European numbers found in Britain in the last ten years has varied from 39% in the mild winter of 1977-78 to 59% in the severe winter of 1984-85, with an average of 47%. The likely peak figure in Britain this winter is therefore estimated at between 64,000 and 96,000, probably in the region of 77,000.

Further age counts are being undertaken up to the end of November, and a report verifying the 1986 breeding result will then be issued. Full censuses are planned for mid-December and mid-January as last year, though the results will be received together after the January count. A report on these will follow.

Table 2. Annual breeding success and wintering numbers of Dark-bellied Brent Geese in Europe and Britain, 1976 to 1986 (1976 winter = 1976-77. etc.)

YEAR	% YOUNG IN WINTER FLOCKS	PEAK WINTER COUNT (OR ESTIMATE) X 1,000	
		EUROPE	G. B.
1976	12	108	49
1977	0	103	40
1978	35	140	63
1979	33	166	75
1980	0	147	67
1981	0	117	60
1982	50	203	93
1983	4	188	87
1984	0	150	89
1985	27	190	83
1986	0 (Provisional)	?163	?64-96 (??77)