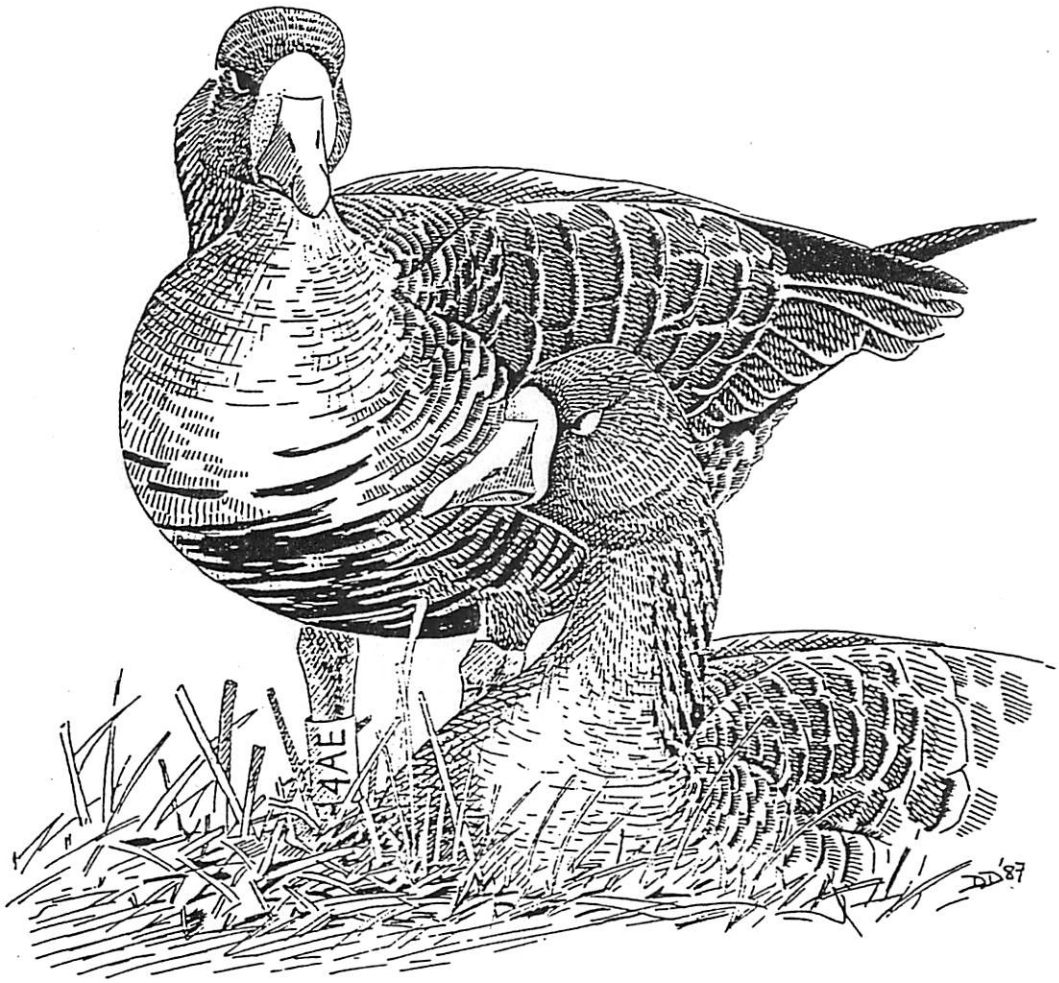
GREENLAND WHITE-FRONTED GEESE IN IRELAND 1990-91



The Office of Public Works
National Parks & Wildlife Service

GREENLAND WHITE-FRONTED GEESE IN IRELAND 1990-91

A PROGRESS REPORT

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GREENLAND WHITE-FRONTED GEESE IN IRELAND

1990 - 1991

Summary

The mean count of Greenland Whitefronts in Wexford was 9,565 in 1990-91, up slightly on the corresponding figure of 9,102 in 1989-90. Spring counts in the Rest of Ireland have resumed the typical pattern of slow increase (up 7% since 1988-89) to 4610, following a drop of > 10% in 1989-90 attributed to birds short-stopping in Scotland. The total population is now estimated at circa 29,000. Breeding success was below average. There was no open season on Whitefronts in 1990-91.

The background to a proposed International Conservation Plan for the Greenland White-fronted Goose is outlined.

Census Dates

International censuses were held on 1-5 December and 23-27 March. In Ireland a further mid-winter count took place on 9-13 February. The Wexford flock was counted on seven occasions between 15 November and 25 March.

Wexford

Counts for Co. Wexford are presented in Table 1 with autumn and spring totals for the past four winters summarised in Table 2. Annual variation in flock size is considerable, dependant on the numbers of immigrants from Scotland, but the underlying trend is of continued increase.

Rest of Ireland

A summary of peak monthly counts is presented in Table 3 with autumn and spring totals for the previous four winters in Table 2.

Coverage of flocks away from Wexford was comparable to that

attained in recent winters. Using previous winter counts 4.9% of the autumn total and 5.2% of the spring total have been estimated. The bulk of the estimated fraction is accounted for by the Connemara flock, which was last censused comprehensively in April 1989. Plans for a combined aerial and ground survey in spring 1991 had unfortunately to be postponed for a year.

The autumn and spring census totals for 1990/91 show a resumption of their typical slow increase after an unusual drop in numbers throughout Ireland in 1989/90, which was attributed to geese short-stopping in Scotland (see Table 2). Individual flocks have continued to show the now familiar relationship of flock size trends with feeding range size and disturbance levels. It would appear that these habitat problems, which have resulted from losses and fragmentation of feeding range, are particularly marked in Greenland Whitefronts because of their attachment to traditional wintering ranges. Other geese are more flexible in this regard and have generally been better able, in a changing environment, to take advantage of large open farmland areas.

Greenland Whitefronts on small sites may be more vulnerable to disturbance because, for instance, (1) they have less scope to avoid ongoing disturbance, (2) they are more likely to leave a feeding site when disturbed, (3) alternatives may not be available and (4) time to resume feeding after a disturbance may be longer. This list of possibilities is far from complete and is intended to show how site size may be important. Information on why small ranges provide marginal wintering habitat is interesting in its own right. More importantly, however, we would like to quantify the relative importance of that component which can be reduced or eliminated by appropriate management as an aid to the development of appropriate management prescriptions. To address these problems we plan a short intensive study of twelve pre-selected flocks in the winter of 1992/93 to quantify activity budgets, condition and disturbance costs on ranges of contrasting size. A fieldwork proposal specifying study flocks and field work inputs will be circulated

shortly.

The background information on flying behaviour that we requested from all counters in the fieldwork instructions for 1991/92 and 1992/93 is an important part of this study; please use the data sheets to collect information whenever the opportunity arises.

Breeding Success

The flock in Wexford contained an estimated 16.6% juveniles (mean broodsize 3.68) while pooled age counts for the Rest of Ireland gave 16.4% juveniles (mean brood size 2.44) (see Table 4). Breeding success was slightly below average. For comparison the long-term means since the introduction of a shooting moratorium in 1982/83 are: Wexford 19.4% young and Rest of Ireland 17.3% young.

Trapping and Marking

Eighty-six Greenland Whitefronts, including one retrap were caught in Wexford in autumn 1990. None were trapped elsewhere in Ireland. In Scotland 22 birds were caught in Islay and this represents the start of a catching programme there. A paper on wintering site interchange, based on the Wildfowl and Wetlands Trust analysis of the resighting information by Stephanie Warren will appear shortly. Neck and leg-band codes used to date are listed in Table 5.

An unexpected development was the reporting of 8MF from Green Lane Reservoir, Montgomery County, Pennsylvania on the 7th December 1990 in the company of 450 Canada geese. Subsequently 8MF has returned to the Slobs in Wexford this winter.

International Conservation Plan for the Greenland White-Fronted Goose

Migratory birds do not recognise political boundaries. Their conservation, therefore requires co-operation at the international level, an underlying principle to be found in many international wildlife conventions such as Ramsar, Bonn and Berne and the EC Birds Directive. To date much of the emphasis has been site orientated, an approach which is satisfactory if the sites form a coherent whole or network. However there is the need to compliment this approach with plans derived from consideration of the issues at a population level. This is very necessary for waterfowl which are exploited and also interact, with various land uses such as agriculture. Flyway management or conservation plans are means of addressing the issues which arise at the national level and need resolving in an international context. Such plans provide a mechanism to bring together the issues along the migratory routes of the species concerned and a forum for discussion, the resolution of problems and the formulation of co-operative conservation plans.

It has long been the view of many of those working on the Greenland White-fronted Goose that it was a suitable candidate for such a plan. In European terms, a range encompassing just four countries, namely Greenland, Iceland, Ireland and the United Kingdom, was seen as advantageous.

The process was initiated during the Conference of the Parties to the Ramsar Convention at Montreux, Switzerland in 1990. The Secretariat hosted an informal meeting of the representatives of the four Range States under Article 5 of the Convention which encourages international consultation on the conservation of wetlands and their fauna. The outcome was that Ireland offered to host a workshop to enable Range States to come together to discuss future co-operation. As a result a workshop will be held in Wexford from 4-6 March 1992. In preparation for this, the National Parks and Wildlife Service of the Office of Public Works contracted the International Waterfowl and Wetlands Research

Bureau (IWRB) to co-ordinate the meeting and to develop a draft international conservation plan for discussion at the workshop. The draft plan is being compiled by David Stroud of the UK's Joint Nature Conservation Committee (JNCC), a biologist with considerable experience of the species and issues throughout its range. The compilation process is being guided by a Steering Committee and has included prior consultation with all relevant governmental and non-governmental interests of the Range States.

The plan comprises three parts as follows:-

Part I contains the descriptive elements. It is a compendium of the current state of knowledge on the species covering such areas as population size and distribution, population dynamics, past and present land uses, diet, habitat selection, utilisation etc. on a Range State basis where appropriate. Part II evaluates the information and provides the justification for co-operative conservation measures. In that sense it sets ideal management objectives by placing on record the ultimate achievements desirable under the plan. It also identifies factors which will hamper or help in the achievement of these objectives e.g. statutory provisions in relation to species and habitat. This part will separate these ideal objectives from the practicable or "operational" objectives i.e. what can be achieved or realised, in a format suitable for ongoing reassessment. Part III is the prescriptive element which identifies how the operational objectives may be achieved. This is very much related to each Range States' existing statutory framework and will ultimately lead to separate national plans within the already established international framework.

The draft plan will be discussed in detail at the Workshop where the objective is agreement in principle. Its place and relationship with the other International Wildlife Conventions will also be discussed.

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Many thanks also to the many observers who supplied information on counts and marked geese in Britain. We are also particularly grateful to Tony Fox for the maintenance of the database and to Myrfyn Owen and David Stroud for their overall support of the project.

David Daly provided the cover illustration.

Table I Counts of Whitefronts in Co. Wexford 1990/91

Date	Wexford Slobs	Cahore	Other	Total
15/11/90	9,201	0		9,201
	9,565	0		9,565
03/12/90	8,072			8,072
	7,858			7,858
19/12/90	8,407			8,407
	8,431			8,431
14/01/91	9,672	26		9,696
	9,997	26		10,021
13/02/91	10,444	0	37	10,481
	10,753	0	37	10,790
06/03/91	9,574	108		9,682
	10,364	108		10,472
25/03/91	8,881	318	0	9,199
	9,280	318	0	9,598

Mean of higher figure from replicate counts 9,565

Table 2 Autumn & spring census totals from 1987/88 to 1990/91. Data for Britain from GWGS.

	1987/88		1988/89		1989/90		1990/91	
	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring
Wexford	7,988	8,781	10,510	9,799	8,238	9,331	8,072	9,598
Rest of Ireland	3,952	4,249	4,328	4,315	4,040	3,792	4,275	4,610
Britain	12,515	11,864	12,503	11,823	14,434	12,984	14,762	15,180
TOTAL	24,445	24,894	27,341	25,937	26,712	26,108	27,109	29,388

Table 3. Summary of peak monthly counts and censuses in the West and Midlands of Ireland - 1990/91

	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Donegal-Derry						
Foyle & Swilly	369	278		273	363	
Dunfanaghy		228+			207	
Sheskinmore		131		121	134	
Pettigo		127[201]			120[224]	
North Central						
Bunduff		7	33		14	
Lr. L. Macnean		82		90+	88	
L. Oughter		52		63	44	
Caledon		28	54	68	26	212
Stabannon		28		36		29
Mayo - Galway						
L. Conn & Ox. Mnts.	71	83			167	
N.W. Mayo		157		141	144	
Errif & Derrycraff		53		48	78	
Connemara Bogs		[134]			[134]	
East Galway						
Rostaff & Killower		138		184		187
Lr. L. Corrib		27		91		91
Rahasane		81		125		122
Clare-Limerick						
Tullagher				0		61
N. Clare	73	73		74		74
Lr. L. Derg		26		24		24
Fergus & Shannon		0		12		11

	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Shannon Head						
L. Gara		(500)	465			291+
L. Drumharlow			78			82
Ls. Kilglass & Forbes		240+	89	111		78
Midlands						
Midland Lakes		318		239	357	
Middle & Lower Shannon						
Inny & L. Ree		125+		120+		58
R. Suck		520		437		428
L. Brosna		439		464+		548
South Midlands						
R. Nore		36		62		66
South West						
Ballycotton	3	2	2			2
Kilcolman	7	7		15		15
Doo Lough	7			7		8
Killarney		41		41		15
Inny Valley		3				0
Dingle		0	0		0	
TOTAL		4275				4610

A space indicates no coverage, a plus sign after a count denotes a minimum figure and round brackets an approximate count. Square brackets indicate no count, or no count received, for the winter and the counts from 1989/90 have been used. Counts used for the autumn and spring censuses have been underlined.

Table 4 Age counts and frequency distribution of brood sizes for Wexford, Rest of Ireland & Britain, 1990/91. Data for Britain from GWGS

Date & Location	Total Aged	% Juvs.	Mean Brood Size (n)	Brood Size 1	2	3	4	5	6	7	8	9
Wexford	6,945	16.6	3.68 (255)	9	46	57	70	54	16	3	0	0
Rest of Ireland	2,677	16.4	2.44 (155)	46	44	36	17	8	2	0	1	1
Britain	5,410	18.8	3.02 (187)	31	43	42	43	21	5	2	0	0

Table 5 Neck-band and leg-ring sequences used on Greeland White-fronted Geese by spring 1991 (* leg-ring only).

Greenland

A01-25*
A27-29*
K01-07*
K10-17*
K20-27*
K30-37*
K40-47*
K50-55*
K60-66*
K70-77*
T01-07*
T20-27*
T30-33*
F01-07*
1-OCA
1-OCC
1-6CE

Wexford

1-5AA
1-OJA
1-OJC
1-OJE
1-OJF
1-OJJ
1-OJK
1-OJM
1-OJP
1-OJR
1-OJT
1-OJY
1-OKA
1-OKC
1-OKE
1-OKF
1-OKJ
1-OKK
1-OKM
1-OKP
1-OKR
1-OKT
1-OKU
1-OKY
1-2MA
1-OME
1-OMJ
1-4MK
1-OPC
1-OPE
1-OPF
1-OPJ
1-OPK
1-OPM
1-OPP
1-OPR
1-OPT
1-OPU
1-ORA
1-ORC
1-ORE
1-ORJ
1-ORK
1-ORM
1-ORP
1-ORT
1-ORU
1-OTA
1-OTC
1-OTE
1-OUA
1-OUC
1-OUE
1-OUF
1-OUJ
1-OUK
1-OUM
1-OUP
1-OUR
1-OUT
1-OUU
1-OUY
6-OMC
5-OMF
9-OMT
1-OMR
1-OMU
1-OMY
1-OCF
1-OCJ
1-0CK
1-6CP
1-OCY
1-6CU
1-OXA
1-OXC
1-OXE
1-OXJ
1-7XH

Rest of Ireland

3-OMA
1-5MC
1-OMM
8-OCU
1-OMP
1-8MT
1-9CM

Scotland

1-OHA
1-OHC
1+OHH