

Observations of neck-banded Nordic Greylag Geese (*Anser anser*) during 1989/1990

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Introduction

Marking within the project started in 1984 and with the large number of neck-banded Greylag Geese now available the main effort during last year has been on observation of the neck-banded geese. Moreover marking has continued during 1990 in important areas (Fig. 1) to keep a relatively high number of marked individuals for detailed studies. In the meantime the data for the first years have been analysed and we are now about to write the first major report that we hope will be published next year.

We have obtained a large number of reports from bird-watchers and goose workers all over the range of Nordic Greylag Geese. Together with our own observations in the breeding areas we now have an ever increasing data-bank on Greylag Geese, with a detailed knowledge of migration routes, staging areas, moulting areas and winter quarters beside information on breeding results. This will enable detailed studies on various aspects of the breeding ecology and population dynamic of the species in addition to the original aim to elucidate migration patterns.

Tab. 1: Number of Greylag Geese neck-banded within the Nordic Greylag Goose Project in 1984–1989 and observed before 30. 6. 1990.

Anzahl der Graugänse, die im »Nordic Greylag Goose Projekt« zwischen 1984–1989 mit Halsringen markiert und vor dem 30. 6. 1990 beobachtet wurden.

Area	Number marked 1984–1989	Number seen		% seen Abroad	Observations in main files
		Total	Abroad		
SW Scania	760	643	493	65	5110
Öster-Malma	308	302	260	84	4355
Gotland	87	79	67	77	564
Sweden other areas	38	35	27	71	177
Norway	737	661	643	87	5817
Denmark	49	46	28	57	507
Finland	133	62	25	19	183
Total	2112	1828	1543	73	16713

It is with great pleasure we give our sincere thanks to all those observers who sent single observations or extensive data-lists to us. We also express our sincere thanks to the different ringing offices which have had to process a lot of data from our project.

This report presents a brief summary of the observations obtained during 1989/1990 together with some information about other results obtained from the study.

Malma, 206 from Norway and 17 from Denmark.

Observations in different countries in 1989/1990

The number of observations of neck-banded Greylag Geese in the different countries is seen from Table 2. As in the other years the majority of the observations were obtained from the Netherlands and Spain, the Netherlands being the most important staging area both in spring and autumn, whereas Spain is the most important winter area.

In all 1089 individuals were seen abroad during 1989/1990. This is 52% of all marked since the start of the project. Taking those dead into consideration this implies that between 60 and 70% of all Greylag Geese wearing Nordic neckbands were actually seen abroad during this season.

76% of all individuals seen abroad were recorded in the Netherlands, whereas 48% were recorded in Spain. The number of observations in Spain during 1989/1990 was much higher than during former years, this being due to intensive field work in southern Spain during the entire season by Hakon Persson of our group. Actually 192 individuals from Scania were seen in the Netherlands compared to 184 seen in Spain. For the first time two Swedish birds were found south of Spain, in Maroc.

The number of observations from other countries was much smaller with the exception of the normal wintering of a large number of Öster-Malma birds at Lac du Der in France. Compared to last year more Öster-Malma geese were seen in the Netherlands than at Lac du Der. Some Öster-Malma birds were seen in Spain in winter and one neck-banded goose wintered in the Camargue.

Numbers marked and reported

During 1984–1989 a total of 2112 Greylag Geese were marked within the Nordic Greylag Goose Project (for details see Table 1). In all 73% of all marked individuals were seen outside the marking country on at least one occasion. Excluding those individuals marked as young and never seen fledged this percentage will actually be higher. Thus 65% of all Greylag Geese marked in SW Scania were later seen abroad, but excluding young not fledged this percentage is 79%. Of Norwegian birds no less than 87% were later recorded abroad.

Most individuals have been seen on a large number of occasions. In the main files we only record first and last observations for an individual in the same locality (plus one per month for areas outside the marking areas) 16713 observations were registered up to 31. May 1990. The full data are stored in special annual files used for detailed analysis. Including repeated observations the total data bank will hold more than 35 000 observations. More than 6000 new records were received from Holland only in 1989/1990.

The neck-banding of Greylag Geese in 1990 resulted in 202 new neckbanded individuals from SW Scania, 55 from Öster-

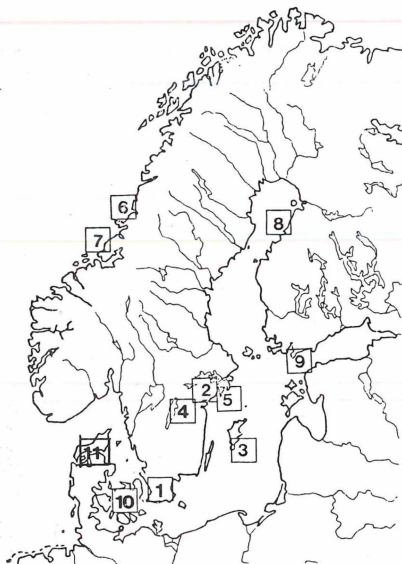


Fig. 1: The geographical position of the marking places for Greylag Geese in the Nordic countries during 1989/1990.

Lage der Markierungsorte von Graugänsen in den nordischen Ländern für 1989/1990: 1. SV Skåne; 2. Öster-Malma; 3. Gotland; 4. Tåkern; 5. Stockholm archipelago; 6. Leka, Nord-Trøndelag; 7. Vikna, Nord-Trøndelag; 8. Kalajoki, Österbotten; 9. Inko, Nyland; 10. Sjaelland/Lolland; 11. Vejle, Jylland.

Tab. 2: Observations of neck-banded Greylag Geese in different countries during 1.7. 1989–31.5. 1990. Each individual noted only once per country. Sweden S = a number of localities in different parts of the country with small numbers marked.

Beobachtungen von mit Halsringen markierten Graugänsen in verschiedenen Ländern zwischen 1.7. 1989 und 31.5. 1990. Jedes Individuum wurde je Land nur einmal notiert.

	Norway	Denmark	Ö-Malma	Marking area		Sweden S	Finland	Total
				SW Scania	Gotland			
Norway	3	0	0	0	0	0	0	3
Finland	0	0	0	0	1	0	15	16
Sweden	2	1	200	395	13	12	2	625
Denmark	12	15	1	35	0	0	0	63
Germany, East	3	2	0	18	16	2	0	41
Germany, West	15	1	9	2	1	0	1	29
The Netherlands	491	14	109	192	20	10	2	838
France	3	0	82	10	0	0	0	95
Spain	303	9	10	184	16	8	4	534
Maroc	0	0	0	2	0	0	0	2
Austria	0	0	0	0	1	0	10	11
Italy	0	0	0	0	0	0	1	1
Algeria	0	0	1	0	0	0	1	2
Tunisia	0	0	0	0	1	0	0	1
Total individuals	529	25	216	429	39	19	23	1280
Total seen abroad	529	20	180	309	34	17	17	1116

Finnish birds migrate mostly through central Europe even if a few individuals have been seen in the Netherlands and in Spain. This season no less than 10 individuals were recorded in Austria. Moreover one was encountered in Algeria and one in Italy.

Seasonal distribution of Greylag Geese

The monthly distribution of the observations of marked Greylag Geese from the more important marking areas during 1989/1990 are presented in Tables 3–6.

The observations obtained in 1989/90 show the same pattern as was found in 1988/1989. Greylag Geese from Norway migrate south much earlier than Swedish Greylag Geese and more than 25% were present in the Netherlands already in August with September number close to the annual maximum (Fig 2). On the other hand very few Greylag Geese from SW Scania and Öster-Malma were seen in the Netherlands before October. The main departure from these areas occurred in October with autumn peaks in the Netherlands during November.

On the other hand Greylag Geese from SW Scania are the first to arrive in Spain. By November 117 Greylag Geese from SW Scania were seen in Spain compared to 98 from Norway, whereas the total numbers seen in the season were 184 and 303, respectively. The highest number of Swedish Greylag Geese in Spain was recorded in November, whereas the highest number of Norwegian birds was seen in January (Fig. 3). In February and March Norwegian Greylag dominated markedly, whereas a good proportion of the Swedish birds were back in the breeding areas.

Survival of Greylag Geese

One of the questions that can be studied with the aid of neck-banded individuals is the annual survival of Greylag Geese. The

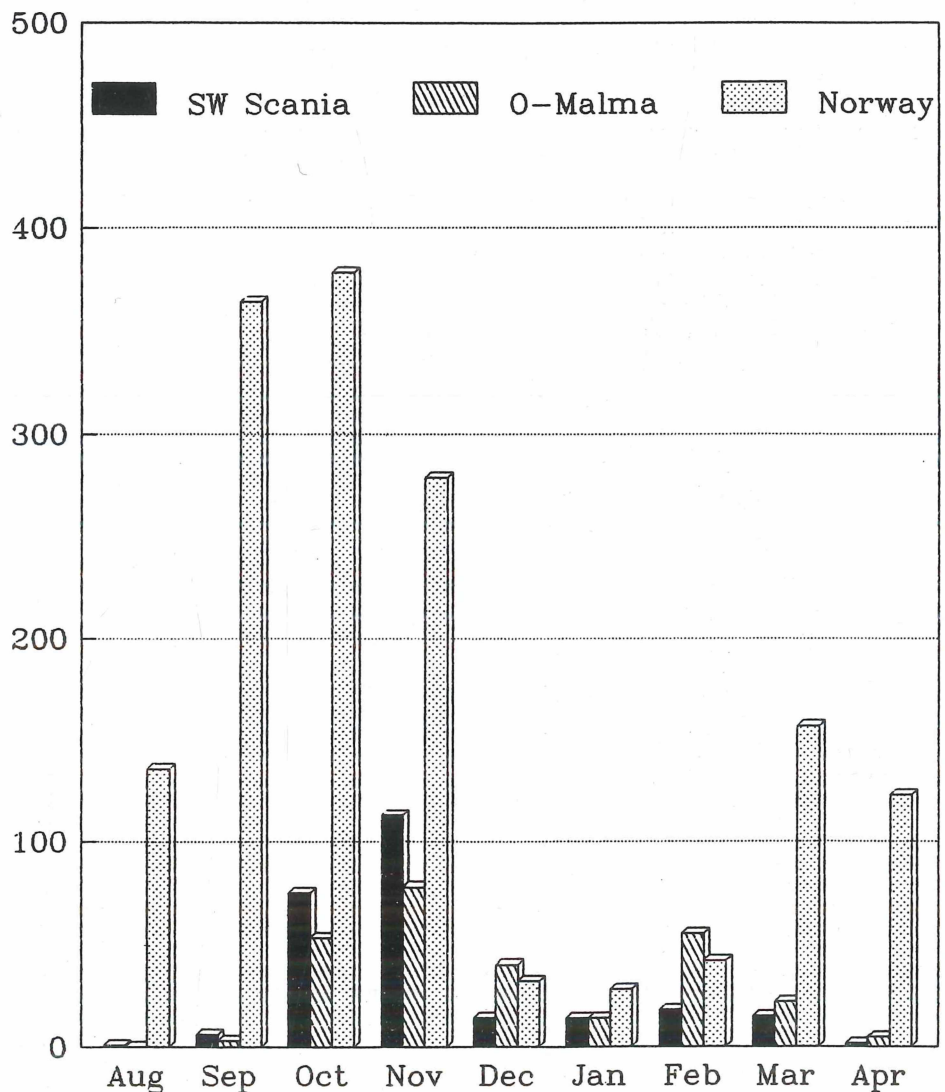


Fig. 2: Observations in the Netherlands during 1989/1990 on Greylag Geese marked in SW Scania, in Öster-Malma and in Norway (see Fig. 1).

Beobachtungen von Graugänsen in den Niederlanden in 1989/1990, die in SV Skåne, in Öster-Malma und in Norwegen markiert wurden (siehe Abb. 1). Die Säulen geben Individuenzahlen an.

mean survival of Greylag Geese from SW Scania marked as breeding adults was 85% (357 bird-years). For first-year birds 55% of 568 marked individuals survived their first year. However no less than 24% of all young marked were never seen as fledglings. Even if a few of these might have escaped undetected most of them certainly died before fledging. Taking this into consideration first year survival for fledged young was as high as 73%. The

annual survival for Greylag Geese marked as young between one and two years of age was somewhat lower, 62%, but here some birds were probably overlooked as these geese show a lower tendency to return to the rearing area.

The annual survival rate showed variation between years. Thus the survival for adults between 1989–1990 was only 77% compared to 95% between 1985–1986

and 1988–1989. Similar the survival for one/two year olds and juveniles was also lower for 1989–90, the higher mortality this year most certainly being due to increased hunting pressure in Spain, when high water in Coto de Donana forced the geese to feed outside the national park.

Tab. 3: Monthly distribution of foreign observations of neck-banded Greylag Geese from SW Scania during 1989/90. Each individual noted once for each country.

Monatliche Verteilung auswärtiger Beobachtungen halsbänderter Graugänse aus SW Scania (siehe Abb. 1) von 1989/1990. Jedes Individuum wurde je Land einmal notiert.

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Denmark	8	4	9	16	3	0	0	0	2	0	7
Germany east	3	8	10	7	0	0	0	0	0	0	0
Germany west	1	0	1	1	0	0	0	0	0	0	0
The Netherlands	18	1	6	75	113	14	14	18	15	2	3
France	0	0	0	1	8	0	0	1	0	0	0
Spain	0	0	1	14	117	82	75	39	3	0	0
Maroc	0	0	0	0	0	2	0	0	0	0	0

Tab. 4: Monthly distribution of foreign observations of neck-banded Greylag Geese from Öster-Malma during 1989/90. Each individual noted once for each country.

Monatliche Verteilung auswärtiger Beobachtungen halsbänderter Graugänse aus Öster-Malma (siehe Abb. 1) von 1989/1990. Jedes Individuum wurde je Land einmal notiert.

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Denmark	0	0	0	0	1	1	0	0	0	0	0
Germany west	0	0	0	1	0	0	0	0	0	0	0
The Netherlands	0	0	3	53	78	40	14	55	22	5	0
France	0	0	8	34	67	66	64	37	8	0	0
Spain	0	0	0	0	4	5	4	1	0	0	0
Algeria	0	0	0	0	0	1	0	0	0	0	0

Tab. 5: Monthly distribution of observations of neck-banded Greylag Geese from Gotland during 1989/90. Each individual noted once for each country.

Monatliche Verteilung von Beobachtungen halsbänderter Graugänse aus Gotland (siehe Abb. 1) von 1989/1990. Jedes Individuum wurde je Land nur einmal notiert.

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Sweden	5	8	9	1	0	0	0	1	2	0	0
Germany east	4	10	14	3	0	0	0	0	0	0	0
Germany west	0	0	0	1	0	0	0	0	0	0	0
The Netherlands	2	0	1	10	10	0	1	2	0	2	1
Spain	0	0	0	1	12	7	7	3	0	0	0
Tunisia	0	0	0	0	0	1	0	0	0	0	0

Tab. 6: Monthly distribution of foreign observations of neck-banded Greylag Geese from Norway during 1989/90. Each individual noted once for each country.

Monatliche Verteilung auswärtiger Beobachtungen halsbänderter Graugänse aus Norwegen von 1989/1990. Jedes Individuum wurde je Land einmal notiert.

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May
Sweden	0	1	2	0	0	0	0	0	0	0	0
Denmark	0	3	6	1	0	0	0	0	4	1	0
Germany east	0	0	3	0	0	0	0	0	0	0	1
Germany west	0	3	3	2	0	0	0	1	10	0	1
The Netherlands	1	136	364	378	279	32	28	42	157	123	1
France	0	0	0	0	1	1	1	1	0	0	0
Spain	0	0	0	0	98	131	180	168	43	0	0

Breeding ecology

The neck-banding programme has provided excellent opportunities for the study of various aspects of the breeding biology and population dynamics of the Greylag Geese. During the years 1987–1990 a total of 130 breeding attempts where one or both parents were neck-banded on arrival in spring could be followed, the annual sample being 21–41 such pairs, several of them followed for more than one year. Most of these pairs were marked as adults but a few of those marked as young have now been recruited into the breeding population. This proportion will of course increase in the future. In all nine Greylag Geese marked as young have up to now been recruited to the breeding population: four 4-year old, three 3-year old and two 2-year old. One of the 2-year old lost the young very early but has been successful in later years.

Swedish Greylag Geese winter mainly in Coto de Donana in southern Spain but a proportion of the population winters in the Dutch Delta area. The exact proportion of individuals wintering in the different areas is difficult to establish due to vastly different chances to see the birds and read neck collars in the two areas. It is however of very great interest to compare the breeding results of the two groups of birds. 76% of 17 pairs wintering in the Netherlands produced young compared to 63% of 62 pairs wintering in Spain. The number of young per pair was higher for the geese wintering in Spain 2.34 compared to 2.06 for those wintering in the Netherlands. For successful pairs the numbers were 3.72 for Spanish wintering geese compared to 2.69 for those wintering in the Netherlands.

Zusammenfassung

Beobachtungen von mit Halsringen markierten nordischen Graugänsen (*Anser anser*) von 1989/1990.

Zwischen 1984 und 1989 wurden im Rahmen des »Nordischen Graugrans Projekts« an verschiedenen Orten Nordeuropas (Abb. 1) insgesamt 2112 Graugänse mit Halsringen markiert, um detaillierte Einblicke in das Zug- und Rastverhalten der dort heimischen Populationen zu erhalten. Der hier abgedruckte Zwischenbericht stellt die Ergebnisse der Auslandsbeobachtungen aus den Jahren 1989 und 1990 (vom 1.7.1989 bis 31.5.1990) dar: Anzahl beringter und beobachteter Grau-

gänse, Beobachtungen in den verschiedenen Ländern, saisonale Verbreitung der Beobachtungen, Überlebensraten der Graugänse und ihre Brutökologie.

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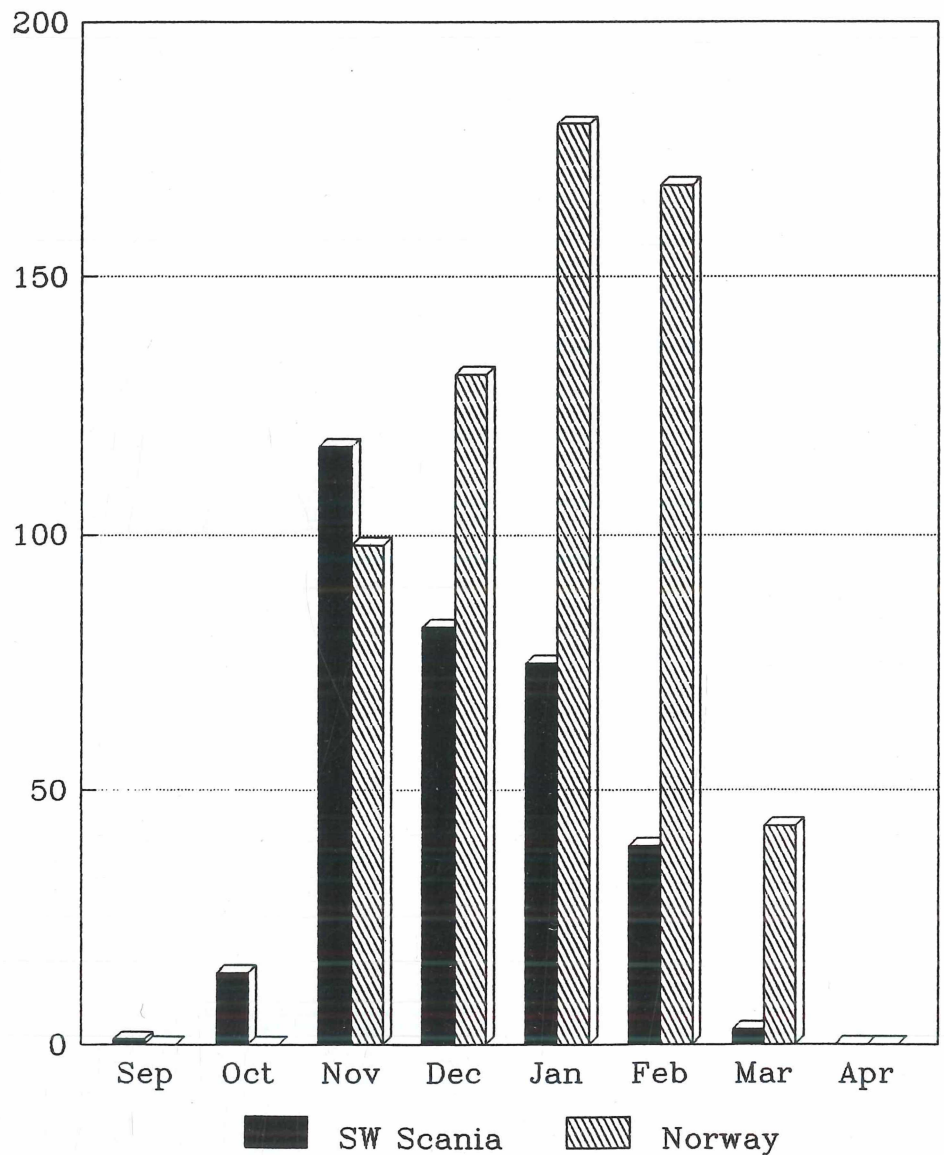


Fig. 3: Observations in Spain during 1989/1990 on Greylag Geese marked in SW Scania and in Norway.
Beobachtungen von Graugänsen in Spanien in 1989/1990, die in SV Skåne und in Norwegen markiert wurden. Die Säulen geben Individuenzahlen an.

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