

Monitoring of Bean Goose in Finnmark County, Norway – results from 2008



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Report to: The Norwegian Directorate for nature management and the County Governor of Finnmark, Environmental department

Publication type: Digital document (pdf)

Front page picture: Three Bean Geese at Stabbursnes, Porsanger Municipality, in spring 2008 © Tomas Aarvak

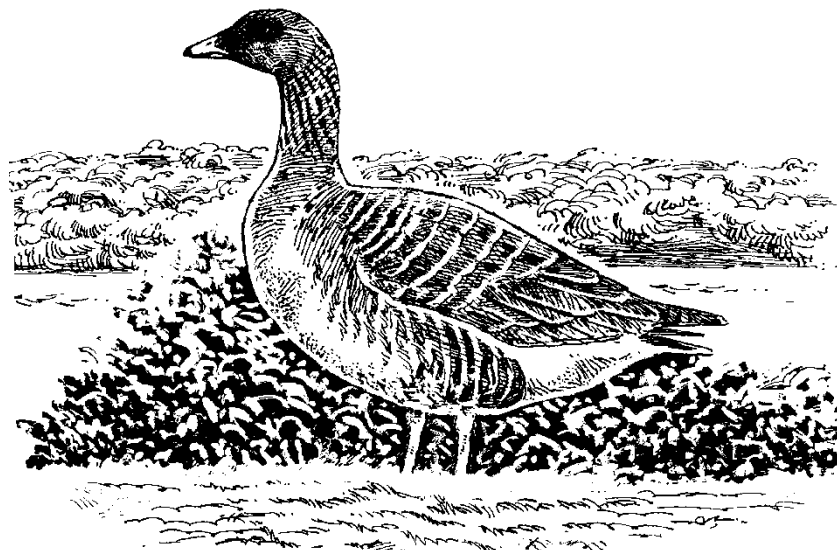
Drawing: © Trond Haugskott

Editor: Tomas Aarvak

Recommended citation: Aarvak, T. & Øien, I.J. 2009. Monitoring of Bean Goose in Finnmark County, Norway – results from 2008. NOF rapportserie report No 2-2009. 10pp.

ISSN: 0805-4932

ISBN: 978-82-78-52092-5



Summary

The annual monitoring of Bean Goose *Anser fabalis* was carried out at the Valdak Marshes, Porsangen fjord, Finnmark County, from 9 May 2008. The largest number of staging geese was 216 individuals on 11 May. Three Bean Geese with black neck bands were observed at the marshes. These were ringed at the same site in 2003 & 2005.

The very important moulting site in Bergebydalen at the Varanger Peninsula was visited twice; once by project personnel and once by a foreign goose specialist. Totally 991 moulting Bean Geese were registered.

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1. INTRODUCTION

In Norway the Bean Goose *Anser fabalis* is at present breeding almost exclusively in Finnmark County in north Norway (**Figure 1**). Unfortunately, its conservation status is largely unknown and the knowledge about population size, migration patterns and demography are fragmentary. The Bean Goose is listed as vulnerable on the Norwegian Red List (Artsdatabanken 2008). Various guesstimates set the present population size at 100-500 reproducing individuals (Artsdatabanken 2008, Frafjord 2000), although Gjershaug *et al.* (1994) considered the Bean Goose population to be as large as 500-1000 pairs. The latter has been uncritically repeated by Olsen (2006).

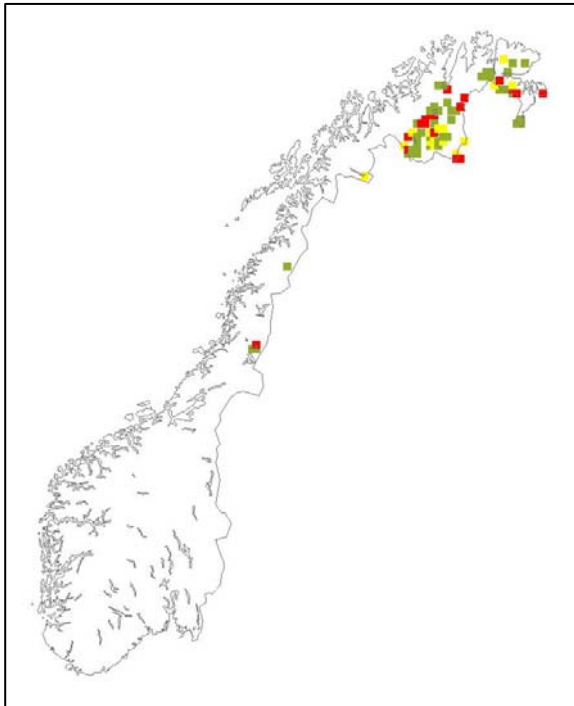


Figure 1. Breeding distribution of Bean Goose *Anser fabalis* in Norway in the 1990s. Source: Norwegian breeding bird atlas.

The Norwegian Bean Goose population has probably experienced a large population decline, especially during the 1970's and 1980's, although hard evidence for this is lacking. However, the picture is not so clear cut since recent unpublished genetic studies show that the breeding population in Finnmark County consists of two separate subspecies: sp. *fabalis* in the easternmost forested areas of Finnmark and sp. *rossicus* in more tundra-like habitats in central parts of the county (own data). These two subspecies are also notoriously difficult to separate. They are very similar looking and there is an overlap in biometric variables, and also colouration and extent of it in the beak. The Norwegian rarity committee has so far not treated records claiming one or the other of these subspecies due to lack of good identification clues for separating them.

The Norwegian Ornithological Society has worked on the Bean Goose in Finnmark County since the early 2000's. Catching and neck banding of Bean Geese at the Valdak Marshes

has been and is still important to shed light on the above mentioned issues for conservation purposes. The use of neck bands provide crucial information about the migration and stopover sites for these threatened populations (*ssp. fabalis & rossicus*), that will be important in order to secure that neither this bird species will disappear from the Norwegian breeding bird fauna.

The work carried out in Finnmark is logistically coordinated with the work undertaken in a similar but much larger project on the Lesser White-fronted Goose – another bird species threatened by extinction.

The present report concentrate the analyses on data from 2002 and until present, since the monitoring period of geese at the Valdak Marshes started later in the season prior to 2002.

2. MONITORING OF STAGING BEAN GEESE IN PORSANGER

2.1 Staging phenology of Bean Geese at the Valdak Marshes

At the Valdak Marshes, the first geese usually to arrive in late April are Greylag Geese *Anser anser*, which are soon followed by Bean Geese in early May. The Lesser White-fronted Goose follows from mid-May.

In 2008, on 9 May, when the monitoring period started, 104 Bean Geese were already present (**Figure 1**). The maximum number of 216 individuals was reached already on 11 May. Thereafter the numbers decreased by some 50% and stayed relatively stable until 20 May. Most Bean Geese had left the Valdak Marshes by 25 May (**Figure 1**).

Using the day of the maximum count as “midpoint” for the staging period, the average for the years 2002-2007 was 13 May (range 8-15), indicating that the timing of the staging period in 2008 was close to the average.

All the observed Bean Geese were identified as belonging to the *rossicus* subspecies.

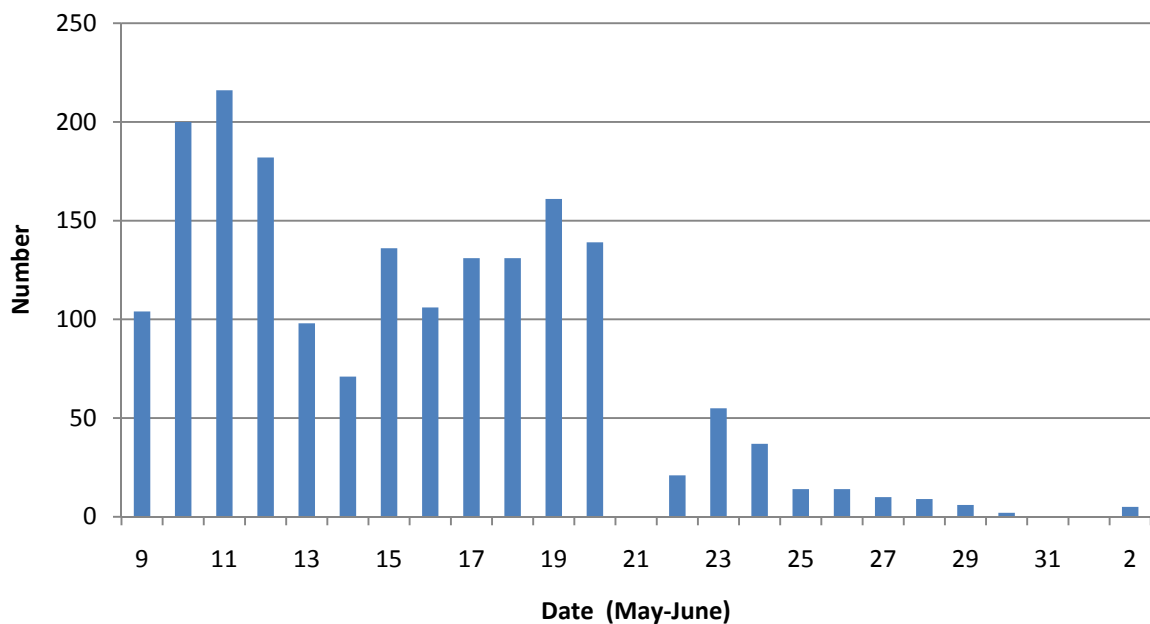


Figure 1. Daily maximum numbers of staging Bean Geese at the Valdak Marshes during spring 2008.

The population development has been positive at the Valdak Marshes in the surveyed years. The number of staging geese has been increasing with an average of 45% per year since 2002, as determined by the maximum count in each year (**Figure 2**).

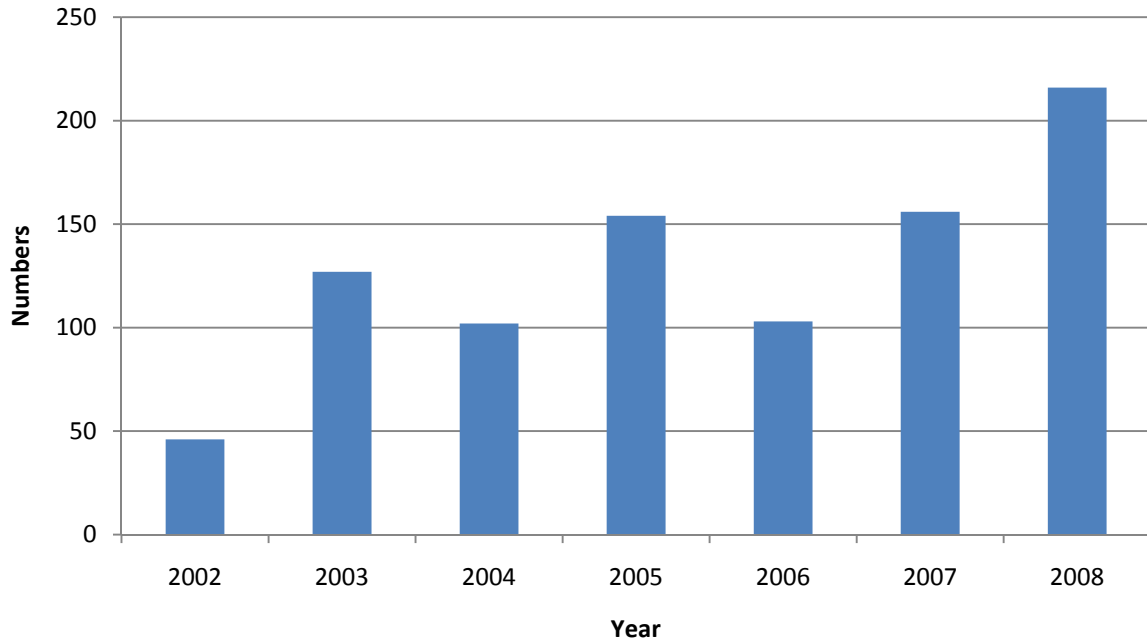


Figure 2. Maximum number of staging Bean Geese at the Valdak Marshes in 2002-2008.

2.2 Staging time for Bean Geese neck banded at Valdak

Three out of eight neck banded Bean Geese caught at the Valdak Marshes were resighted here in 2008. The female A04 staged in the period 10-20 May, female A05 staged 10-31 May and the male A07 staged in the period 10-20 May (**Table 1**).

Table 1. Staging time (in days) of neck banded Bean Geese at the Valdak Marshes.

Individual	Year of ringing	Year				
		2004	2005	2006	2007	2008
A04	2003	12	22	5	12	11
A05	2003	5	11	6	10	22
A07	2005			10	7	11
A10	2005			9		
A11	2005				7	
Mean		8.5	16.5	7.5	9	14.7

The material from the Valdak Marshes is quite limited, but gives anyway a rough description of the staging behaviour of Bean Geese at the Valdak Marshes. The mean annual staging period is 11.2 days. This is more than 50% longer than for the Lesser White-fronted Goose, who stage on average

for 7.2 days (years 1993-2000; Aarvak & Øien 2004). The longer staging period could simply be explained by the difference in timing of passage. The Bean Geese arrive much earlier (about a week) than the Lesser White-fronted Geese. Usually the arctic salt tolerant grass *Puccinellia phryganodes* has not started to grow when the Bean Geese arrive. They also seem to feed almost exclusively on the roots and not the shoots of this species.

2.3 Resightings of neck banded Bean Geese at other sites

During the years 2003-08 we have received several interesting resightings of the neck banded Bean Geese that have been caught at the Valdak Marshes in the Porsangen fjord.

Based on the resightings from Sweden and not the least from Mecklenburg-Vorpommern in Germany in January, a clearer picture of the migration routes and wintering areas for this population is emerging (see **Table 2**). Combining the neck band observations and the results from the satellite tracking of a female in 2006 we also know that the Valdak birds moult at the Varanger Peninsula when the breeding attempt fails or breeding is abandoned already from the start.

During autumn we have only one recovery, from Tåkern, Sweden, in October 2003. In addition to the two winter recoveries and the one from autumn, the rest are from Sweden in spring. (see **Table 2**).



A female Bean Goose with neck band A10. The bird was caught 14 May 2005 at the Valdak Marshes, Finnmark County. The bird which belongs to the rossicus ssp., has an atypical low base of the bill and large extent of the orange colouration. © Ingar J. Øien

Table 2. Observations of Bean Geese neck banded at the Valdak Marshes in the years 2003-2007. Bold letters (& underline) define date of ringing.

Code	Date from	Date to	Locality	Country	North	East	Observer
A04	<u>18.05.2003</u>		<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A04	11.05.2004	17.05.2004	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A04	25.11.2004		Norr Everöds airport, Skåne	Sweden	55.57	14.06	Reported by L. Nilsson
A04	13.05.2005	02.06.2005	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A04	14.01.2006		Wiek and Altenkirchen, M.-V.	Germany	54.31	13.18	M. Vieth
A04	13.05.2006	17.05.2006	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A04	09.05.2007	20.05.2007	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A04	13.12.2007		Hoby Väster, Skåne	Sweden	55.43	14.12	Reported by L. Nilsson
A04	10.05.2008	20.05.2008	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A05	<u>18.05.2003</u>		<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A05	12.10.2003	06.11.2003	Tåkern	Sweden	58.20	14.48	Reported by L. Nilsson
A05	01.05.2004	05.05.2004	Alvik, Luleå municipality	Sweden	65.30	21.46	L.Sandberg, P.Sandberg & T.Arvidsson
A05	11.05.2004	15.05.2004	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A05	31.07.2004		Suovvejaroaivvejavri, Nesseby municipality	Norway	70.18	29.13	IJØ, AHØ
A05	19.04.2006		Kvismaren	Sweden	59.10	15.22	E.F. Nordberg
A05	13.05.2005	23.05.2005	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A05	05.05.2006		Klubben, Alvik, Luleå municipality	Sweden	65.30	21.46	
A05	14.05.2006	19.05.2006	Valdak, Porsanger municipality	Norway	70.10	24.40	TAA, ME
A05	25.04.2007		Alviksgården, Norrbotn	Sweden	65.33	21.46	Reported by L. Nilsson
A05	13.05.2007	22.05.2007	Valdak, Porsanger municipality	Norway	70.10	24.40	TAA, IJØ
A05	29.04.2008	30.04.2008	Alviksgården, Norrbotn	Sweden	65.33	21.46	T. Heinicke, R. Gustafsson
A05	05.05.2008		Persöfjärden, Luleå	Sweden			R. Gustafsson
A05	10.05.2008	31.05.2008	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A07	<u>14.05.2005</u>	<u>30.05.2005</u>	<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A07	30.07.2005		Vatn 208, Bergebydalen, Nesseby municipality	Norway	70.16	29.13	IJØ
A07	07.05.2006	16.05.2006	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A07	17.03.2007		Öby, Kvismaren, Närke	Sweden			B. Runesson
A07	01.05.2007	08.05.2007	Norra Sunderbyn, Norrbotn	Sweden	65.41	21.50	Reported by L. Nilsson
A07	14.05.2007	20.05.2007	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A07	28.04.2008	06.05.2008	Alviksgården, Norrbotn	Sweden	65.33	21.46	T.Heinicke, R.Gustafsson, L.Berggren
A07	10.05.2008	20.05.2008	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A8	<u>14.05.2005</u>		<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A08	03.05.2006		Klubben, Ersnäs, Luleå municipality	Sweden	65.30	21.46	
A10	<u>14.05.2005</u>	<u>30.05.2005</u>	<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A10	06.03.2006		Flyingeby, Lund	Sweden	55.45	13.20	Reported by L. Nilsson
A10	09.05.2006	17.05.2006	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA
A10	25.07.2006		Vatn 208, Bergebydalen, Nesseby municipality	Norway	70.16	29.13	
A11	<u>14.05.2005</u>	<u>17.05.2005</u>	<u>Valdak, Porsanger municipality</u>	Norway	70.10	24.40	IJØ, TAA
A11	05.05.2006		Klubben, Alvik, Luleå municipality	Sweden	65.30	21.46	L. Sandberg
A11	09.05.2007	15.05.2007	Valdak, Porsanger municipality	Norway	70.10	24.40	IJØ, TAA

3. Monitoring of moulting Bean Geese at Varanger

After 2002, when it was discovered that large amounts of Bean Geese were staging in the Bergebydalen valley (Figure 3), NOF has monitored this area annually, except for 2003 (see Table 3, Figure 4).

In 2008 field work was carried out in the moulting area for Bean Geese at the Varanger Peninsula in the period 30-31.07.2008. The whole area was inspected by foot and by use of telescope. Only the lakes 217 and 208 contained larger number of moulting geese. In Lake 208, two Barnacle Geese *Branta leucopsis* were observed. The observation conditions were generally favourable and no neck banded geese were observed.

In total we located 991 moulting Bean Geese in the Bergebydalen valley in 2008. The area was also visited by the German goose specialist, Thomas Heinicke, who counted 870 tundra Bean Geese (ssp. *rossicus*) and one forest Bean Goose (ssp. *fabalis*), one second-calendar year White-fronted Goose *Anser albifrons* and two single Pink-footed Geese *Anser brachyrhynchus*.



Figure 3. The moulting area for Bean Geese in Bergebydalen valley, Nesseby municipality. The dark line defines the surveyed area.

Table 3. Number of moulting Bean Geese observed at different lakes (Norwegian “vatn”) in the years 2002–08 in Bergebydalen valley at the Varanger Peninsula, Finnmark.

Year (date)	Bergeby								Total
	vatnet	Vatn 218	Vatn 214	Vatn 217	Vatn 231	Vatn 210	Vatn 209	Vatn 208	
2002 (22–23.07)	Ca 100	Ca 50	0	150–200	0	120	0	254	724
2002 (28.07)	0	0	0	42	0	341	0	0	386
2004 (30.07)	0	0	0	67	138+3	0	0	143	351
2005 (30.07)	0	0	670	23+3		98	10	99	903
2006 (25.07)	0	0	431	0	13	475	0	0	919
2007 (20.07)	0	0	0	0	0	0	0	0	0
2007 (08.08)	0	0	117	0	0	0	358	43	518
2008 (30.07)	0	0	3	241	7	0	0	740	991

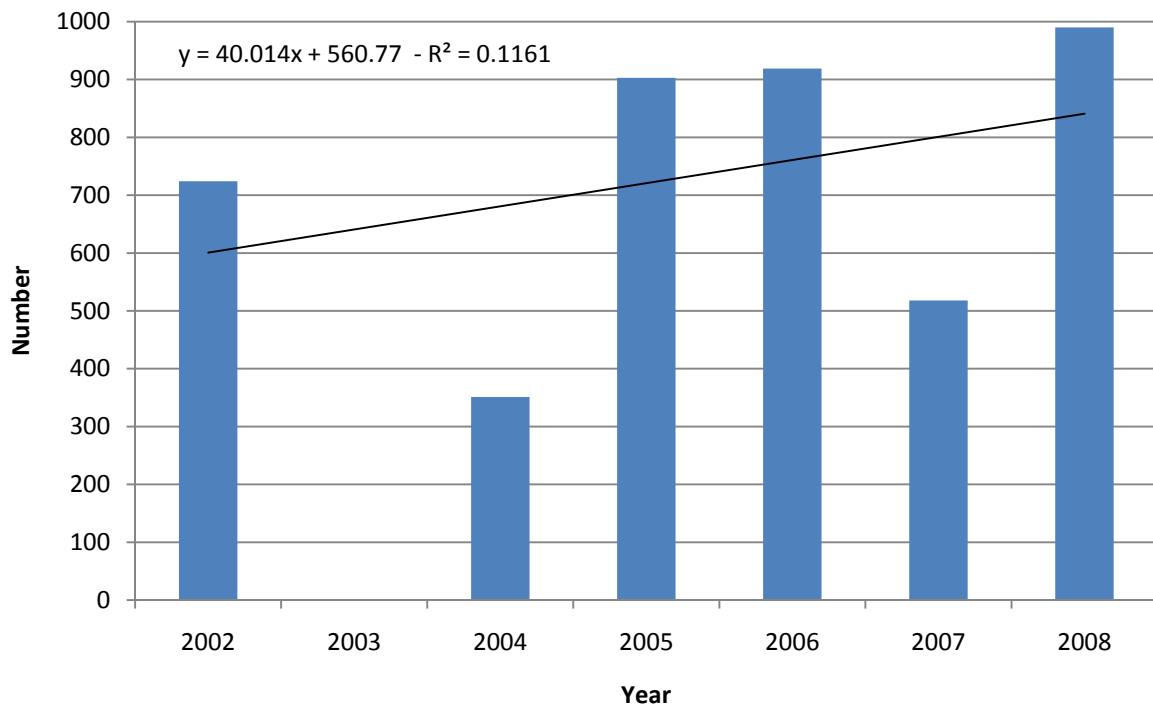


Figure 4. Number of moulting Bean Geese in Bergebydalen valley, Varanger Peninsula, in 2002-2008.



A flying flock of Bean Geese that has already finished moult at lake "208" in Bergebydalen, Nesseby Municipality. Photo: Terje Kolaas, 2007.

4. ACKNOWLEDGMENTS

Many persons have been involved in the project in 2008. We would especially like to thank Torkjell Morset in the State nature inspectorate (SNO) for excellent logistic and personal assistance in many areas during field work. We would also like to thank Gry Ingebretsen, Svein Ingebrigtsen and Tove Persen at “Stabbursnes Naturhus og Museum” for great hospitality and good cooperation. A lot of help and good cooperation were also the experience with Morten Ekker at the Directorate for nature management and Stig Sandring at the environmental department, Office of the County Governor of Finnmark.

Financial support was provided by the environmental department– Office of the County Governor of Finnmark, and the Directorate for Nature Management, Norway.

5. REFERENCES

- Aarvak, T. & Øien, I.J. 2004. Monitoring of staging Lesser White-fronted Geese at the Valdak Marshes, Norway, in the years 2001-2003. In: Aarvak, T. & Timonen, S. (eds.): Fennoscandian Lesser White-fronted Goose conservation project. Report 2001-2003. WWF Finland Report No 20 & Norwegian Ornithological Society, NOF Rapportserie no. 1-2004:19-24.
- Artsdatabanken 2008. Artsinformasjon: sædgås. <http://rodlistebase.artsdatabanken.no>. Norsk Rødliste 2008.
- Frafjord, K. 2000. Sædgås i Finnmark. Lappmeisen 24: 28-31.
- Gjershaug, J.O., Thingstad, P.G., Eldøy, S., Byrkjeland, S. 1994. *Norsk fugleatlas*. Norsk Ornitologisk Forening, Klæbu. 552s.
- Olsen, K. 2006. Sædgås *Anser fabalis*. Pp.48-49 in: Svorkmo-Lundberg, T., Bakken, V., Helberg, M., Mork, K., Røer, J.E. og Sæbø, S. (red.). *Norsk VinterfuglAtlas*. Fuglenes utbredelse, bestandsstørrelse og økologi vinterstid. Norsk Ornitologisk Forening, Trondheim. 496 p.