

# The spring migration of the Lesser White-fronted Goose at the Bothnian Bay in 1999

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## 1. Introduction

The severe world-wide decline of the Lesser White-fronted Goose (*Anser erythropus*, later LWfG) first became apparent in the Fennoscandian population. In Finland, the regular and intensive monitoring started just after the numbers of staging LWfG had decreased to c.100 individuals. The autumn staging as a phenomenon has almost totally disappeared, whereas spring staging LWfG are still seen. After the heavy decline, the only regular staging sites in Finland remain in the low-lying fields with short vegetation along the Bothnian Bay coast.

The year 1999 was the 15th consecutive year with intensive monitoring in the Bothnian Bay by the LWfG working group of WWF Finland. The main results of the monitoring work are summarised in this article.

## 2. Study area and weather conditions

In 1999, three separate areas were surveyed on the Bothnian Bay coast near Oulu (Figure 1). A detailed description of the study sites is given by Markkola et al. (1998). The Tömpä meadow in Hailuoto has been the most important staging site during the years of LWfG monitoring. In some years in the 1980's, the Säärenperä area has been the best place. The importance of the third area, Liminganlahti Bay, has been gradually decreasing, and at present LWfG are only rarely observed in the area.



**Photo.** An adult Lesser White-fronted Goose at the Tömpä meadows on Hailuoto, recorded on digital video for individual identification based on the belly patch markings. © Seppo Haapala, May 1999

The weather was exceptionally cold during the first half of May (5°C below the 30-year average), but the temperature rose rapidly (5 degrees) on 16 and 17 May. When the LWfG continued their migration on 19 May the temperature was 5°C above the 30-year average.

## 3. Methods

The LWfG were observed from permanent hides in Säärenperä and Tömpä. In the Liminganlahti Bay, the geese were searched for by round walks and observing from bird towers. Observations

from the hide succeeded well in Tömpä, whereas in Säärenperä the LWfG were unexpectedly feeding in fields situated 1–2 kilometres from the most regularly used main staging field. Thus, the observations by round walks became the most important method in Säärenperä.

Altogether nine persons participated in the monitoring. The continuous observation period lasted from 5 to 20 May in all observation points.

The attention was mainly paid to video filming of the geese from the hide in Tömpä and from far distance in Säärenperä with a Sony MV 10 video camera with optical magnification up to 16x and a digital magnification up to 64x. The video camera was fixed to the ocular of a telescope (Leica Apo Televid with ocular magnification of 20–60x or 32x). In practice the geese could be filmed from a distance of some hundred metres.

## 4. Numbers of LWfG in different observation sites

The daily numbers and the total sum of LWfG in the different observation sites are presented in Table 1. Also the number of goosedays and the cumulative sum of individuals are shown. The number of goosedays indicates the preferability of staging place for the geese and the cumulative sum reveals the progress of the migration.

### 4.1. Tömpä

At the Tömpä meadows in Hailuoto altogether 11 individuals were seen in the period 9–19 May. This is less than at Säärenperä in the nearby mainland area. The length of the staging period, 11 days, was exactly the same as in Säärenperä, and it was continuous (no "empty" days). The peak of the migration took place on 19 May. Three pairs stayed in the fields for 7 days. The number of goosedays was 24 days higher than at Säärenperä. The average staging period per individual was 5.7 days.

### 4.2. Säärenperä

As in 1998, the LWfG preferred the Säärenperä area. The numbers at this site exceeded those of the Tömpä meadows: altogether 16 LWfG were counted. The peak migration took place 1–2 days earlier than in Hailuoto, and the migration period was two-peaked: 6 LWfG were observed from 10 to 11 May, and the second staging period started after three "empty" days and lasted for five days.

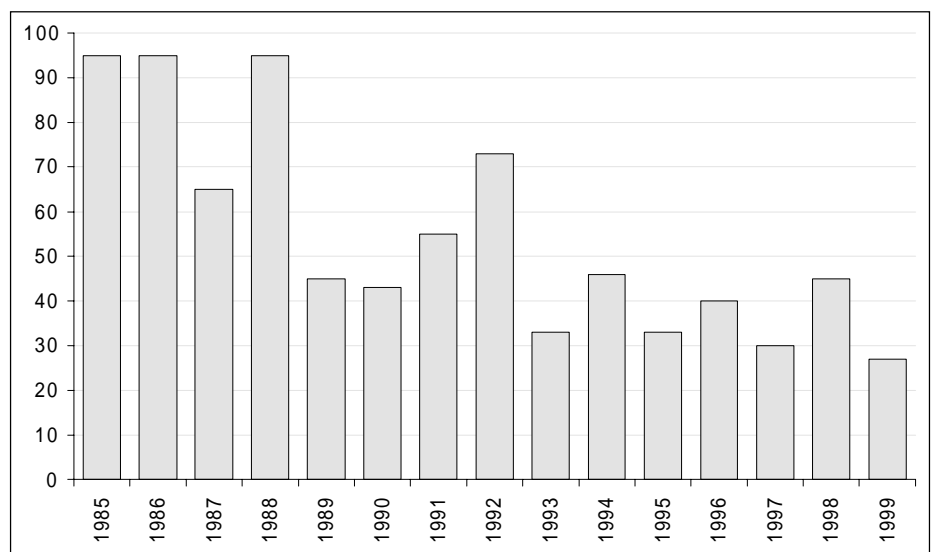
**Table 1.** Daily numbers of Lesser White-fronted Geese in 1999 in three main observation sites and the cumulative sum of different individuals seen in these places. The final cumulative sum of different individuals per place are shown in the last column. The daily sum of LWfG at all observation points is presented on the last line.

Area / date of May	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
<b>Hailuoto, Tömpä</b>																	
Daily number	–	–	–	–	4	6	6	6	6	6	6	6	4	4	9	–	63 goosedays
Cumulative sum	–	–	–	–	4	6	6	6	6	6	6	6	6	6	11	11	11 ind.
<b>Siikajoki, Säärenperä</b>																	
Daily number	–	–	–	–	–	6	2	–	–	–	2	6	10	8	5	–	39 goosedays
Cumulative sum	–	–	–	–	–	6	6	6	6	6	8	12	16	16	16	16	16 ind.
<b>Bay of Liminganlahti</b>																	
Daily number	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Daily sum of all places	–	–	–	–	4	12	12	12	12	12	14	18	22	22	27	–	

**Figure 1.** Spring staging areas on the Bothnian Bay coast. The figures inside the circles indicate the number of LWfG seen at each site in spring 1999. For detailed information see the text.



**Figure 2.** Total numbers of Lesser White-fronted Geese in the Bothnian Bay spring staging areas in the period 1985–1999.



The main fields used by LWfG in Säärenperä were situated southwards from the western cape area, outside the borders of the Nature 2000 conservation area. The reason for this unusual site preference is unclear: it was e.g. assumed that the brand new hide could have scared the geese.

### 4.3. Liminganlahti and Kraaseli

During the period no LWfG were observed in Liminganlahti Bay.

### 4.4. Additional observations

As in 1998, the first arriving LWfG was an adult bird flying at the Sannanlahti Bay in the Liminganlahti area on 17 April. LWfG arriving in Finland in early or mid April are commonly considered to be originating from the reintroduction project in Sweden.

## 5. Discussion

The total number of migrating LWfG, 27 individuals, was the lowest since the start of the monitoring in 1985 (Figure 2). This was unexpected considering the high numbers last year (Timonen 1999) and the high numbers in Estonia earlier this spring (see Tolvanen et al. 2000, pp. 18–21 in this report).

In Tömpä, only one out of three properly identified pairs was found present also in Matsalu, Estonia. None of these three pairs were later observed at Valdak. One out of Säärenperä's four properly

identified pairs was also seen both in Matsalu and at Valdak, and another one only at Valdak (see Aarvak et al. 2000, pp. 32–33 in this report).

## References

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