

On the occurrence of the Great Grey Owl (*Strix nebulosa*) in Finland 1955—68

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The Great Grey Owl bred in great numbers for some years in the 1930's, predominantly in the northernmost part of Finnish Lapland. After that, we have no knowledge of any nests at all in Finland from 1942 to 1954. In spite of the intensified interest in birds, only four nest finds for this species were published from 1955 to 1964. Of these, only one was in Lapland, the others were much farther south. Only a few observations were made in 1955—64 (v. HAARTMAN *et al.* 1967—). However, a larger number of Great Grey Owls were met within the 1960's, and in the years 1966—67 we can speak of a real mass occurrence.

Material and methods

For this paper, we have collected all the observations which we know concerning the Great Grey Owl in Finland during the years 1955—68. The major part of these records has been collected either during our own expeditions or given to us by numerous assistants. Also included are various published observations and information collected by the zoological museums of Finland. We should like to express, our grateful thanks to all those birdwatchers who have made their records available to us.

Results

In the next chapter, the following details are given by provinces and parishes: 1. nest finds, 2. observations during breeding-time (April—July) and 3. observations during autumn and winter (August—March) (for each parish, the time of occurrence and, in parentheses the published source or name of assistant). Also the following abbreviations have been used: UH=Department of Zoology, University of Helsinki, UT=Department of Zoology, University of Turku, UO=Department of Zoology, University of Oulu, PA=Palmen's archives and MA=Merikallio's archives.

The province of Lapland

Nest finds: Inari, at least one nest in 1958—60 (T. Räsänen); Sodankylä, one nest in 1960 (v. HAARTMAN *et al.* 1967—); Pelkosenniemi, one nest in 1967 (Newspaper "Lapin Kansa", good photos); Kemijärvi, one nest in 1964 (S. Toiviainen) and Rovaniemi, one nest in 1964 (A. Komonen).

Observations during breeding-time: Utsjoki, on 11.7.1958 (SILVOLA 1959); Enontekiö, in summer 1965 (v. HAARTMAN *et al.* op.c.); Savukoski, approximately on 25.7.1963 and 25.4.1965 (M. Montonen); Salla, on 1.7.1957 (A. Kleemola) and Rovaniemi, on 17.5.1955 (J. Alapulli).

Observations during autumn and winter: Enontekiö, on 18.3.1965 (UO); Inari, in

winter 1957 (MA); Kemijärvi, on 31.8.1963, 24.10.1963, 6.11.1964 and 25.12.1965 (S. Toivainen); Salla, on 18.10.1962 (UH) and Rovaniemi, on 0.12.1960 (UH).

The province of Oulu

Nest finds: Kuusamo, one nest in 1958, 1963, 1964, 1965 and 1966 (J. Vendelin, A. Korvenheimo and P. Kivi); Yli-Ii, one nest in 1964 (A. Alaräihä); Pudasjärvi, one nest in 1962 (Y. Sihvo); Kiiminki, one nest in 1966 and 1967 (A. Manninen); Oulu, one nest possibly in 1960 (MA) and four nests in 1966 (H. Mikkola, K. Polojärvi, A. Rinttilä and A. Väyrynen); Saloinen, one nest in 1966 (V. Kastelli); Rautio, one nest in 1966 (K. Huhtala); Ylivieska, one nest in 1961 (K. Huhtala); Haapavesi, one nest in 1966 (P. & P. Koskela); Puolanka, one nest in 1964 (P. Vaara); Vaala, one nest in 1962 and 1965, six nests in 1966 and five nests in 1967 (Y. Karjalainen and J. Ruuskanen); Vuolijoki, one nest in 1966 (A. Pohjolainen); Paltamo, one nest in 1965 and 1966 (P. Helo); Kajaani, one nest in 1966 (P. Helo); Kuhmo, two nests in 1967 (P. Helo and Y. Karttimo); Ristijärvi, one nest in 1966 (M. Klemetti); Hyrynsalmi, one nest in 1964 and 1965, three nests in 1966 and seven nests in 1967 (AARNIO & HÄYRI-NEN 1967, H. Aarnio, H. Heikkinen, L. Kempainen, K. Kinnunen and L. Niskanen) and Suomussalmi, one nest in 1964 and 1966, four nests in 1967 (P. Helo and Y. Karttimo).

Observations during breeding-time: Kempele, approximately on 15.5.1966 (H. Kerkelä); Liminka, on 4.4.1959 (MA); Siikajoki, on 4.4.1965 (UO); Alavieska, in summer 1965 (K. Huhtala); Utajärvi, on 7.4.1967 (Y. Karjalainen) and on 0.7.1967 (K. Kukko-oja); Puolanka, during summers 1960—1963 (P. Vaara); Paltamo, on 1.5.1965 (UO); Kajaani, on 0.4.1965 (UO) and Ristijärvi, during summers 1960—1967 (P. Helo).

Observations during autumn and winter: Kuusamo, in autumn 1964 (P. Kivi), on 15.9.1962 (UO), on 14.11. and 9.12.1967 (E. Nyholm); Ranua, on 22.10.1962 (UO); Ii, on 9.10.1963 (UT); Pudasjärvi, on 11.11.1962 (two birds) and 8.9.1963 (UO); Posio, on 18.9.1963 (UH); Ylikiiminki, on 27.11.1966 (UO); Haukipudas, on 4.10., 1.11.1964 and 0.9.1966 (UO); Oulu, in spring 1967 and 2.9.1968 (A. Väyrynen); Rantsila, in autumn 1965 (S. Pasanen); Saloinen, on 12.3.1968 (Newspaper "Raahen Seutu", photo); Kalajoki, on 8.12.1964 (UO); Haapavesi, on 0.8.1966 (UO); Utajärvi, on 4.10.1966 and 24.2.1968 (UO), on 6.10.1963 (two birds) and 30.12.1967 (E. Kemilä); Vaala, on 27.9.1967 (UO); Pyhäntä, in autumn 1966 (O. Kauko-

nen); Kajaani, on 0.9.1965 (UO) and on 1.10.1967 (P. Helo); Sotkamo, on 27.3.1965 (UO) and at least three dead birds in winter 1964—65 (P. Helo); Kuhmo, on 27.3.1965 and 0.8.1966 (UO), in autumn 1967 (P. Hyttiäinen) and on 17.9.1967 (two birds) (M. Montonen); Hyrynsalmi, at least four observations in autumn 1967 (L. Kempainen and L. Niskanen) and Suomussalmi, during autumns 1963—1964 (Y. Karttimo), on 13.10.1963 (UT), on 1.1.1966 (UO) and on 16.10.1967 (two birds) (P. Juntunen).

The province of Vaasa

Nest finds: Kälviä, one nest in 1956 (CASEN 1956); Koivulahti, one nest in 1955 (BÄCK 1955); Perho, one nest in 1958 (P. Helo) and Siipyy, one nest in 1965 and 1966 (STORTEIR 1966 and v. HAARTMAN *et al.* 1967—).

Observations during breeding-time: Kannus, in summer 1962 (J. Kujanpää); Ilmajoki, on 12.5.1958 (SULKAVA & SULKAVA 1964) and Siipyy, during summers 1960, 1962 and 1963 (STORTEIR *op.c.*).

Observations during autumn and winter: Kaarlela, in winter 1965 (v. HAARTMAN *et al.* *op.c.*); Kokkola, on 26.3.1955 (MA); Teerijärvi, on 28.12.1961 (CASEN 1962); Oravainen, on 30.10. and 6.11.1955 (MA); Vaasa, on 6.1. and 13.2.1955 (MA) and Kristiina, on 1.3.—3.4.1956 (JOHANSSON 1957) and on 7.11.1964 (MA).

The province of Kuopio

Nest find: Riistavesi, one nest in 1965 (T. Räsänen).

Observations during autumn and winter: Vesanto, on 0.11.1959 (MA); Nilsiä, on 0.10.1963 (UO) and Vehmersalmi, in autumn 1966 (A. Pohjoinen).

The province of Central-Finland

Nest find: Pylkönmäki, one nest in 1965 (KÄRKKÄINEN 1965).

Observations during breeding-time: Pylkönmäki, in summer 1966 (S. Kärkkäinen) and Keuruu, during summers 1964—1966 (A. Perälä) and 17.4.1967 (MIKKOLA 1969).

Observations during winter: Keuruu on 0.12.1966, 0.2.1968 and 4.2.1968 (H. Joenniemi and J. Pihlainen).

The province of northern Karelia

Nest find: Tohmajärvi, one nest in 1966 (O. Eskelinen).

Observations during breeding-time: Tohmajärvi, on 16.4.1955 (PA) and Eno, in summer 1964 (v. HAARTMAN *et al.* 1967—).

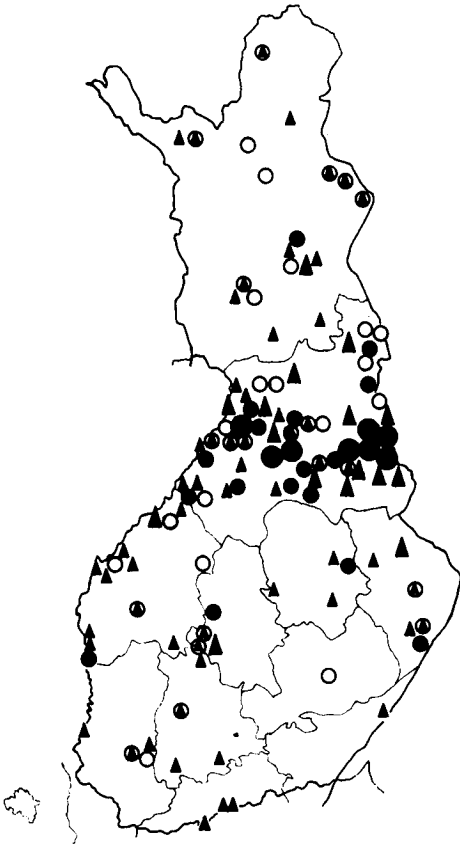


FIG. 1. Occurrences of the Great Grey Owl in Finland from 1955 to 1968. ○ = nest in the years 1955—65; ● = one nest in 1966—1967; ●● = three nests in 1966—1967; ○ + ▲ = observation during breeding-time (April—July); ▲ = one observation during autumn and winter (August—March); ▲▲ = three observations during autumn and winter. A nest in which breeding has taken place for more than one year is marked only once on the map, and observations which are made near some known nest sites during breeding-time are not regarded as additional. (*Lapinpöllön esiintyminen Suomessa 1955—1968*. ○ = pesä vuosina 1955—65, ● = yksi pesä 1966—67, ●● = kolme pesää 1966—67, ○ + ▲ = pesintäaikainen havainto (huhti—heinäkuu), ▲ = havainto syksyllä tai talvella, ▲▲ = kolme havaintoa syksyllä tai talvella. Useampana vuonna asuttu pesä on mer-

Observations during autumn and winter: Juuka, on 1.10.1962 (UO); Pielisjärvi, on 21.11.1963 (UO) and in winter 1965 (v. HAARTMAN *et al.* op.c.); Lieksa, on 25.9.1964 (UO) and Tohmajärvi, in winter 1962 (UO).

The province of Häme

Observation during breeding-time: Tampere, on 9—13.4.1967 (I. Häkkinen)

Observations during winter: Virrat, on 0.2.1957 (E. Kellomäki); Vilppula, in winter 1965 (Y. Taipale); Hausjärvi, on 16.2.1955 (MA) and Tammela, on 4.3.1956 (MA).

The province of Mikkeli

Nest find: Juva, one nest in 1962 (M. Mela).

The province of Kymi

Observations during winter: Rautjärvi, on 0.1.1961 (TUUSSA 1962).

The province of Uusimaa

Observations during autumn and winter: Helsinki, on 5.2.1956 (v. HAARTMAN *et al.* 1967—); Kirkkonummi, on 6.10.1967 (BERGMAN 1968) and Tikkurila, on 3.3.1968 (HILDÉN & MIKKOLA 1968).

The province of Turku and Pori

Nest find: Loimaa, one nest in 1958 (KANGASPERKO 1959).

Observation during breeding-time: Loimaa, in summer 1958 (H. Kangasperko).

Observations during autumn and winter: Humpvila, on 13.2.1961 (UH) and Rauma, on 0.10.1967 (J. Itämiies).

Discussion

Observations of the Great Grey Owl between the years 1955 and 1968 have been recorded in different parts of Finland (Fig. 1). In Finland the centre of occurrence in the 1960's has been in the province of Oulu. The earlier rich occurrences, e.g. at the beginning of the 1900's and in the 1930's have, however, been particularly in Lapland (KIVIRIKKO 1947 and ME-

kitty karttaan vain kerran ja tunnetun pesäpaikan lähellä tehtyjä pesimisaikaisia havaintoja ei ole erikseen otettu huomioon.)

TABLE 1. Summary of the occurrences of the Great Grey Owl during the years 1955—1968 in the provinces of Lapland and Oulu and in South Finland. L = Lapland; O = Oulu; SF = South Finland. (*Yhteenveto lapinpöllön esiintymisestä Lapin ja Oulun läänien sekä Etelä-Suomen alueella vuosina 1955—1968. L = Lapin lääni, O = Oulun lääni ja SF = Etelä-Suomi.*)

Year Vuosi	Nest finds Pesälöytöjä				Observations IV—VII Havaintoja IV—VII				Observations VIII—III Havaintoja VIII—III			
	L	O	SF	Total Yht.	L	O	SF	Total Yht.	L	O	SF	Total Yht.
1955	—	—	1	1	1	—	1	2	—	—	6	6
1956	—	—	1	1	—	—	—	—	—	—	3	3
1957	—	—	—	—	1	—	—	1	1	—	1	2
1958	1	1	2	4	1	—	2	3	—	—	—	—
1959	1	—	—	1	—	1	—	1	—	—	1	1
1960	2	1	—	3	—	2	1	3	1	—	—	1
1961	—	1	—	1	—	2	—	2	—	—	3	3
1962	—	2	1	3	—	2	2	4	1	4	2	7
1963	—	1	—	1	1	2	1	4	2	5	2	9
1964	2	5	—	7	—	1	2	3	1	5	2	8
1965	—	4	3	7	2	5	1	8	2	7	3	12
1966	—	23	2	25	—	2	2	4	—	7	2	9
1967	1	19	—	20	—	3	2	5	—	15	2	17
1968	—	—	—	—	—	—	—	—	—	3	3	6
Total Yht.	7	57	10	74	6	20	14	40	8	46	30	84

RIKALLIO 1958). The southernmost nest was at Loimaa (60°57') in 1958 (KANGASPERKO 1959). Other southern nesting places are Juva (1962), Siipyy (1965—1966) and Tohmajärvi (1966) (Fig. 1).

The Great Grey Owl has clearly become more common in Finland between 1955 and 1967. The occurrences have been more concentrated in those years when voles have appeared in abundance, although rather irregularly. At least in Southern and Central Finland, the peak years for the Field Vole have been 1958, 1962 and 1966 (LINKOLA & MYLLYMÄKI 1969 and unpublished material at the Department of Zoology, University of Oulu). In the 1950's, it was in 1958 particularly when the most Great Grey Owls were met with during breeding-time (Table 1).

However, the next peak year for voles, 1962, did not noticeably increase the occurrence of this species. After that, however, it was met with during breeding-time in many localities in 1964—65. During the 1966 peak year for voles, Great Grey Owls bred in great numbers mostly in the province of Oulu. The rich occurrence continued during the spring of 1967 in the eastern parts of the province of Oulu, e.g. all four nests which were found in 1966 in the town area of Oulu were empty in 1967. The vole population was remarkably reduced in 1967 amongst other places in the province of Oulu (op.cit. unpublished material). The Great Grey Owl was not observed in 1968 during breeding-time, though for example, all old nest sites were examined.

Occurrences of the Great Grey Owl

in Finland from 1955 to 1968 seem to be associated with an invasion of this species from the East, yet in the 1962 peak year for voles it was obviously very rare in Finland. At that time it is possible that the main population bred more to the east in Northern Russia. The vole population was remarkably reduced in Northeast Finland about the time of the 1963/64 winter.

In autumn 1963, a field course arranged by the University of Oulu succeeded in catching very many voles at Kuusamo, but the ecological course did not get any voles at all in the spring of 1964. It is possible that the vole population was decimated at that time in Northern Russia as well, and this was followed by a great invasion of these birds during winter 1964/65. This invasion extended as far as Sweden (HÖGLUND & LANSGRÉN 1968).

During the autumns and winters from 1955 until 1969 the following numbers of dead Great Grey Owls were sent from Northern Finland to Mr. A. Hellemaa in Oulu (the most famous taxidermist in Northern Finland until his death in 1962) and to the Department of Zoology, University of Oulu:

1955/56	0	1960/61	0	1965/66	2
1956/57	0	1961/62	1	1966/67	5
1957/58	0	1962/63	5	1967/68	2
1958/59	1	1963/64	3	1968/69	1
1959/60	0	1964/65	10		

This population, which wandered in the winter of 1964/65, obviously settled in the first place in the province of Oulu in Finland, where it bred in great numbers during the vole years 1966—1967. As early as 1967, the population seems to have moved a little to the east. The fact that there is such a scarcity of observations during the winters of 1967/68 and 1968/69 and that no owls bred during the summer of 1968, shows that most of the population had gone away from Finland, obviously eastward. There are only a few observations from South and West-Finland.

It seems probable that most of the population are living a sort of nomadic life (cf. also HÖGLUND & LANSGRÉN op.c.). Some separate pairs have, however, bred or at least have been staying for many consecutive years on the same nest site, although the voles have obviously been scarce for some years (e.g. Siippy and Hyrynsalmi). The fact that the Great Grey Owl has become more common in Finland from 1955 to 1968, is connected not only with the peak vole years but maybe also with the fact that the climate has become colder (cf. SII-VONEN 1943). A separate paper dealing with the effect of climatic changes on the occurrence of some northern bird species is in preparation (K. Huhtala), and this also deals more closely with the occurrences of the Great Grey Owl.

Selostus: Lapinpöllön (*Strix nebulosa*) esiintymisestä Suomessa vuosina 1955—68.

Kirjoitukseen on koottu kaikki tietoomme tulleet lapinpöllöhavainnot Suomesta vuosilta 1955—68. Nämä on lueteltu lääneittäin ja pitäjittäin. Havainnot sijoittuvat maamme eri osiin kuvan 1 osoittamalla tavalla. Esiintymisalueen keskus on ollut Suomessa 1960-luvulla Oulun läänissä, jossa vuosina 1966 ja 1967 voitiin puhua todellisesta massaesiintymisestä. Aikaisemmin näitä massaesiintymiä on todettu vain Lapissa (mm. 1900-luvun alussa ja 1930-luvulla).

Esiintyminen on keskittynyt, joskin hyvin epäsäännöllisesti, myyrävuosiin (1958, 1962 ja 1966). Huippuvuosi 1962 ei selvästi lisännyt pesimisaikaista esiintymistä ja myyrävuosista riippumatta lajia tavattiin pesivänä monin paikoin jo 1964—65. Lapinpöllön esiintymiseen Suomessa vuosina 1955—68 näyttää liittyneen vaellusmaisia populaation siirtymiä pääosan kannasta viettäessä ilmeisesti nomadisoivaa elämää. Pohjois-Venäjällä sattuva myyräkantojen romahdus voi olla syynä samaan aikaan Suomessa ja Ruotsissa todettuihin lapinpöllövaelluksiin (esim. talvi 1964/65). Idästä vaeltanut kanta jää hyvinä myyrävuosina pesimään län-

teen ja vaeltanee takaisin myyrien loppuessa. Kuitenkin tiedetään yksittäisiä pareja, jotka ovat oleskelleet samalla pesäpaikalla useita vuosia peräkkäin, vaikka myyrät joinakin vuosina olisivat olleet hyvinkin vähissä (esim. Siipyy ja Hyrynsalmi).

Lapinpöllö on keskimäärin huomattavasti yleistynyt Suomessa vuosina 1955—68 ja tämä ei liity myyrävuosiin, vaan ehkä ilmaston kylmenemiseen. Ilmastonmuutosten vaikutuksesta eräiden pohjoisten lajien esiintymiseen on parhaillaan valmisteilla erillinen tutkimus (Huh-tala), jossa lapinpöllön esiintymistä tarkastellaan lähemmin.

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