On the occurrence of the Great Reed Warbler (*Acrocephalus arundinaceus*) in Finland

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The Great Reed Warbler is a fairly new addition to Finnish avifauna. The first record of this species dates from 25.5. 1930 (HYTÖNEN 1930). Since that record there have been numerous others. HILDÉN and LINKOLA (1962) say that the Great Reed Warbler established itself on the bays along the southern coast of Finland during the 1940's, but it has not been possible to observe any continuous increase in its numbers. RAITASUO (1963) also states that the expansion of the range of this species in Finland has come to a halt. VOOUS (1960) reports that the Great Reed Warbler has continuously extended its breeding area since the beginning of the 1930's. Since there were nesting records from Finland for the five years up to 1962 (HILDÉN & LINKOLA 1962) and the number of records seems to be on the increase, it might be appropriate to examine the existing material to find out about a possible extension of area and the times of occurrence.

Material and methods

In addition to the previously published material further records were collected from bird-watchers by means of requests in the ornithological periodicals *Ornis Fennica, Luonnon Tutkija* and *Lintumies*. Since the earlier records are lacking in detail and as they are to a great extent occasional, the material for the years 1950—67 consisting of 91 records was chosen for the present analysis. Since there are so many records they are presented in the tables and figures only. The name of the observer is given in brackets where the record is of special significance. The most reliable basic material comes from the author's own personal observation notes during the years 1953—67 in Viik, Helsinki.

Results

A. Localities of Great Reed Warbler records in Finland

The years 1930—1949

The first record is that of 25.5.1930 (HYTÖNEN 1930) from Viik, Helsinki. The next time the bird was reported was on 12.6.1936 (LEIVO 1937) in Östersundom, Sipoo, and in 1937 it was recorded both in Iso-Huopalahti (ROOS 1937 and LAMPIO) and Viik (REINIKAINEN 1943) in Helsinki. During the years 1939—1949 the Great Reed Warbler was reported almost annually at one of the three localities, Viik, Östersundom or Iso-Huopalahti. The westernmost record for this period comes from Harparskogträsk on the Hanko peninsula on 26.5.1940 (KAILA and PAATELA 1949). A new locality for this period is Porvoo where the species is known to have been found regularly

TABLE 1. The number of Great Reed Warblers observed during the years 1950—1967 at known localities in Finland. (*Vuosina 1950—67 tunnetuilla löytöpaikoilla Suomessa havaittujen rastaskerttusten määrä.*)

	1950	-51	-52	-53	-54	-55	-56	-57	-58	-59	-60	-61	-62	-63	-64	-65	-66	-67
Coast of the Gulf of Finland																		
Suomenlahden rannikko																		
Helsinki, Viik	1	—	1	2	1	—	1	1	2	5	2	2	4	3	1	2	2	1
Helsinki, Iso-Huopalahti	1	—	—	—	—	—	1	—	—	2	—	—	—	1	—	—	—	—
Helsinki, Laajalahti	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Helsinki, Laajasalo	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Helsinki, Lauttasaari	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helsinki, Isosaari	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Helsinki, Svinö	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Hels.pit. Borgastrandviken	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—
Porvoo, Ruskis	—	1	—	—	1	—	—	—	—	—	—	1	1	3	2	1	1	1
Sipoo, Östersundom	1	1	3	1	—	—	—	—	—	—	—	1	—	—	—	1	1	1
Tammisaari	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1
Vehkalahti	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
South-western coast																		
Lounaisrannikko																		
Turun ympäristö	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Piikkiö	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Jurmo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Mietoinen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Rymättylä, Aasla	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Taivassalo, Rantalahti •	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Eckerö, Signildskär	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coast of the Gulf of Bothnia																		
Pohjanlahden rannikko																		
Kristiina	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Hailuoto	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Inland localities																		
Sisämaa																		
Riistavesi	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—
Espoo, Bodom	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Ruokolahti	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Nummi, Koisjärvi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Janakkala, Vähikkälä	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
Janakkala, Tervakoski	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Värtsilä, Uusikylä	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Rääkkylä, Venturinniemi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—

during the years 1940—45 (GRANBERG). All these localities are in eutrophic bays along the southern coast of Finland and there is only one inland record for this period, Riistavesi on 3.6.1941 (REINIKAINEN 1943).

The years 1950—1967

During the years 1950—1967 the Great Reed Warbler was recorded in Finland annually. This material is given in Table 1. Most of the records come from the

coast of the Gulf of Finland. In the traditional localities Porvoo, Östersundom and Helsinki the species has been recorded almost annually. There are 9 records from south-western Finland and two from the coast of the Gulf of Bothnia. The numerous inland records during the years 1966—1967 deserve special attention. The species has been most regular in Viik, Helsinki, where it has also been studied most. A statistical analysis of the material shows that there is no trend towards any real increase. In Porvoo the Great Reed Warbler is reported to have become an annual visitor only around the beginning of the 1960's (Peussa pers. comm.). The number of records from the whole of Finland has increased gradually but the calculations carried out on the basis of these records are not statistically significant. Large annual fluctuations may be seen in the material. The species was exceptionally numerous during the years 1959, 1965 and 1966 and scarce in 1955, 1957, 1964 and 1967. This might indicate that the number of Great Reed Warbles in Finland fluctuates considerably from year to year, although the material is insufficient for a reliable analysis.

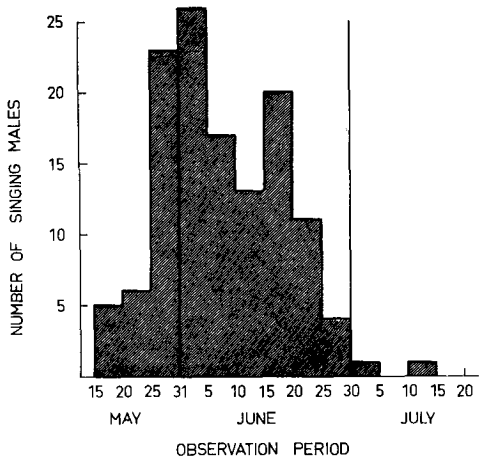

FIGURE 1. Number of singing males of the Great Reed Warbler during different periods of the summer in Finland. (*Laulavana havaittujen rastaskerttuskoiraiden määrä kesän eri vaiheissa Suomessa.*)

B. Habitats and nesting in Finland

HILDÉN and LINKOLA (1962) report that the Great Reed Warbler nested in Finland in 1943, 1951, 1957, 1959 and 1960. In 1959 there were three nesting pairs in Viik (Merikallio pers. comm.) and in addition to this the author has found the species nesting in Viik in 1962 and 1965. But the Great Reed Warbler did not nest in the Helsinki area during the years 1966—68. Of the older records it may be mentioned that Granberg photographed this species on its nest in Porvoo as early as 1941. The birds observed in Porvoo during the 1960's have apparently not nested (Peussa pers. comm.).

Almost without exception the birds in Finland have been found in tall reed-beds. The first record of any other type of habitat is that by HÄYRINEN (1959). A migrating male bird on 3.6.1958 sang in willow shrub beside a marshy lake. There is a similar record from Värtsilä, Northern Karelia, on 14.6.1966 (LAAKSONEN, TIUSSA, VARTIAINEN 1967) where a male sang one night in a birch and willow thicket in the middle of a field. All other records refer to birds found in reed-beds.

C. Times of occurrence

Most of the birds recorded in Finland have been singing males. The material is grouped on the basis of singing dates in Fig. 1. The first singing males are found in Finland immediately after 15.5 but the majority of them first arrive between 25—31.5. The active song period seems to continue until 20.6. Occasional song may be heard in July. The number of singing males is at its peak between 1—5.6. The earliest record comes from

Rymättylä, Aasla, on 15.5.1965 (HALMEVAARA & LEHTO 1966) and the latest from Turku 13.8.1964 (KARLSON & KARLSON 1966).

Discussion

The material is too scanty for any elaborate conclusions. It is obvious that there are more records from the 1960's than from any previous period. But on the other hand bird-watching has become very much more popular during that period; this has obviously influenced the number of records to a certain extent. It may also explain the numerous new localities. At the same time one can be reasonably sure that there has been no definite increase at the old known localities during 1950—67. The most regular occurrence has been recorded from the localities already known in the 1930's, namely Viik in Helsinki, Östersundom in Sipoo and Porvoo. At the other localities the species seems to be occasional. The recent numerous inland records may be connected with a greater occurrence because this species seems to fluctuate greatly from year to year.

Although the Great Reed Warbler is known to have bred in Finland since the year 1941 it is not a regular annual breeder even at its most regular localities, so one may assume that it has not yet settled down. RAITASUO (1963) thinks the reason for the halt in expansion may be just the lack of sufficiently dense reed-beds, but there seems to be enough suitable reed-beds as the succesful breeding records indicate. The great number of nesting pairs in Viik in 1959 seems to suggest that it would be possible for the birds to breed more frequently if it only depended on nest-sites and suitable habitats. It is also known (KLUJVER 1953) that the Great Reed Warbler may sometimes build its nest in bushes in the middle of reed-beds. VOOUS (1960) considers the Great Reed Warbler to be a strong competitor with its relatives. It seems more probable that the restricting factor would rather be low summer temperatures, because according to VOOUS (1960) the species reaches its northern most limit in Finland.

The short song period makes it more difficult to observe this species. The breeding males stop singing at the latest when incubation starts (KLUJVER 1953). Proof of this may be gained even from the Finnish material. It means that the bird might remain unnoticed even in fairly well explored localities and the majority of the records come from the most frequently visited localities. On the other hand the powerful song makes it easier to observe the species. Bearing this in mind one may argue that there has probably been no change in the breeding area of the Great Reed Warbler in Finland for a very long time, possibly since the late 1930's. At most it may be argued that the species has established itself more firmly without becoming a regular breeder.

Summary

The Great Reed Warbler is a fairly new arrival in Finland. The author has studied the species in Helsinki during the years 1953—1967 and he has also collected all other records from Finland by other observers. Altogether there are 91 records of the species during the years 1950—1967. Most of them come from previously known localities near Helsinki, but since the 1960's there have also been a number of inland records. Many new localities in the 1960's may be explained by the greater activity of the birdwatchers, since there has been no obvious increase in the number of birds at the old localities. The material indicates that the bird could breed more numerously along the southern coast if it were only a matter of suitable habitats, but this has not happened. It seems that the population fluctuates greatly

from year to year, but on the average it has remained unchanged. Most of the Great Reed Warblers have been found in lush reed-beds, but there are two records from bush habitats. The main obstacle to any extension of the breeding area seems to be climatic rather than a lack of suitable habitats.

Selostus: **Rastaskerttusen *(Acrocephalus arundinaceus)* esiintymisestä Suomessa**

Rastaskerttunen on Suomessa verraten uusi tulokas. Kirjoittaja on seurannut lajia Helsingissä vv. 1953—1967 ja kerännyt lisäksi eri henkilöiltä havaintoja lajista. Kaikkiaan saatiin tietoon 91 löytöä vv. 1950—1967. Laji on tavattu pääosaltaan ennestään tunnetuilla esiintymispaikoilla Helsingin ympäristössä, mutta 1960-luvulta on tiedossa myös joukko sisämaalöytöjä. Monet uudet 1960-luvun löytöpaikat voitaneen selittää lisääntyvästä retkeilyaktiivisuudesta johtuviksi, koska vanhoilla esiintymispaikoillaan laji ei ole yleistynyt. Aineisto osoittaa, että nykyistä runsaampi esiintyminen eteläranikolla olisi mahdollista ainakin biotooppien puolesta. Näyttää ilmeiseltä, että kanta vaihtelee kovasti eri vuosina, mutta on keskimäärin pysynyt muuttumattomana. Valtaosa rastaskerttusista on tavattu rehevissä ruoikoissa, mutta myös pensaikkobiotoopilla laji on tavattu kahdesti. Aineiston katsotaan osoittavan lajin leviämisen estyneen pikemminkin ilmastollisista syistä kuin sopivan elinpiirin puuttumisen vuoksi.

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