

The increase in the numbers of the Common Gull *Larus canus* and its colonization of Estonian peat-bogs in recent decades

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Up to the 1950s, the Common Gull in Estonia bred in marine habitats, inhabiting inland lakes to a much smaller extent. Since then it has extended its range, colonizing raised peat-bogs, and this process is still continuing. Conversely, the Herring Gull, formerly a common species in peat-bogs, is spreading to coastal islands. The spread of the Common Gull is most likely due to overpopulation of suitable habitats in marine areas. It has also become a common breeder in the peat-bogs of Latvia. Nowadays Common Gulls inhabit over 20 peat-bogs in Estonia, where they total at least 220 pairs.

In a short survey of the changes in the bird fauna of Estonian peat-bogs during recent decades (KUMARI, 1972), I reported that the Common Gull, *Larus canus* L., has been colonizing a number of Estonian peat-bogs since the 1950s. This process is still going on and, curiously enough, at the same time the Herring Gull, *Larus argentatus* Pont., is withdrawing from peat-bogs to marine habitats, i.e., to the age-long living space of the Common Gull (KUMARI, in press). The aim of the present paper is to shed light on the spread of the Common Gull in the peat-bogs of Estonia against the background of the rise in its numbers in the Baltic basin.

It is known (REMMERT, 1957) that in the 1950s the Common Gull was numerous in Denmark — about 500,000 pairs, but the species was represented by considerably smaller numbers in the GDR and FRG — a total of 20,000 pairs, and there were only about 250

pairs in Holland and 30 pairs in South England. In the above-mentioned areas the species is mainly confined to the seashore, but in Scotland, Ireland, Denmark, Schleswig-Holstein and particularly in Fennoscandia it also nests near inland water bodies.

MERIKALLIO (1958) estimated that the Common Gull numbered 5000 pairs in Finland, where it was distributed on the seashore, islands and lakes, and was the most numerous gull species after the Blackheaded Gull, *Larus ridibundus* L. In the post-war years the Common Gull has increased in numbers in Schleswig-Holstein and the FRG (SCHMIDT and BREHM, 1974), decreased in South England (PARSLOW, 1973), and increased considerably in Scotland and Ireland. At present about 13,000 pairs nest in the GDR (NEHLS, 1971; the largest Common Gull colony on Langwerder Is. is descended from about 100 nesting pairs observed there in 1900;

in 1930 it was composed of 4500 pairs, in 1960 of 6000 pairs and in 1969 of as many as 8500 pairs (NEHLS, 1970). Only a few nesting places have been recorded on the territory that was formerly East Prussia (TISCHLER, 1941) and only a single one in Lithuania (IVANAUSKAS, 1964). Though nesting records appear to be somewhat more numerous in Poland (the area of the River Vistula, a number of coastal and inland lakes), the number of breeding pairs is so far small (TOMIALOJČ, 1972). In Latvia, only solitary pairs were met with in the 1930s in the coastal areas and inland lakes (TRANSEHE and SINATS, 1936), while at the present time (J. VIKSNE, oral communication) the total breeding numbers in Latvia are estimated at approximately 300 pairs (according to TAURINŠ, 200—250 pairs nested in the country — thus the increase in 20 years was quite insignificant).

The above data indicate that during the last few decades the trends in the numbers of the Common Gull in the Baltic basin have not been uniform: while there has been no change, or only a slow rise, in its numbers in some areas (Latvia, Lithuania, Poland, a number of localities in the GDR and the FRG), a considerable increase has been observed in other regions (Denmark, South Sweden, South Finland, Estonia).

The late SVEN ONNO's studies of the population ecology of the Common Gull on islands off the W Estonian coast (ONNO, 1965, 1967, 1970, 1971) contribute greatly to the elucidation of possible reasons for the increase in the numbers of the species and its shift from marine habitats to peat-bogs. The young individuals of the species tend to disperse to new areas, though in general the Common Gull (particularly the males) appears to be very conservative and chooses the same nesting place in several successive years.

The males attain sexual maturity at the age of 2—3 years and the females at the age of 3—4 years. The annual mortality in the area investigated did not exceed 12 per cent. The studies on the W Estonian islands were begun in 1962 and the numbers of the Common Gull in the Matsalu State Nature Reserve and the Moonsund islands have been observed to increase rapidly up to 1975. The counts taken on the islands and the coastal area of Matsalu State Nature Reserve yielded slightly over 1200 pairs in 1967 and over 2000 pairs in 1974. According to the counts taken on 25 coastal islands in the Vilsandi State Nature Reserve, the numbers of nesting birds grew from 840 pairs in 1959 to 1234 pairs in 1966 (ONNO, 1971). According to the 1972 counts, more than 15,700 pairs nested in the Moonsund (area lying between the Estonian mainland, Hiiumaa Is., Vormsi Is. and Muhu Is.), while the total numbers of the species in the coastal areas and islands of W and NW Estonia were as many as 30,000—25,000 pairs.

O. RENNO has estimated the present numbers of the Common Gull at ca. 40,000 pairs (oral communication), of which ca. 39,000 pairs nest in the coastal areas and islands, 500 pairs in the basin of Lake Peipsi and the remaining 500 pairs on other inland waters, including peat-bogs.

Owing to the intense increase in its numbers during the last 25 years, the species has had to find new habitats outside the coastal islands and large inland waters. The increase has probably occurred in marine habitats, since these have become more intensively colonized, whereas there has not been any overpopulation of lakes.

Records of the Common Gull nesting in raised peat-bogs in the countries surrounding the Baltic are extremely scanty; GROEBBELS (1938) reports only one



FIG. 1. A large hollow-pool complex in the Nätsi peat-bog, where the Common Gull made its first appearance in 1953. Photo by E. Kumari. May 18, 1953.

case in Germany, in Latvia the Common Gull has been recorded as an errant nesting bird in bog-pools (TRANSEHE and SINATS, 1936), and in Finland MERIKALLIO (1958) does not mention this habitat of the species at all, whereas HAARTMAN, HILDÉN, LINKOLA, SUOMALAINEN and TENOVUO (1967) report a single case. We started our studies of the avifauna of Estonian peat-bogs as early as in 1937, but during the first 15 years not a single case of the Common Gull nesting in peat-bogs was recorded.

The year 1953 constituted a turning-point; on May 18 of that year, 20 individuals of the Common Gull were observed sitting beside and flying above a large bog-pool in the Nätsi peat-bog,

a classic area of ornithological research in western Estonia (Fig. 1). By this time of the year the Common Gull is generally nesting already, but after remaining for a few days, these birds left the Nätsi bog. In the same spring a Common Gull pair was found nesting in the neighbourhood, by a dystrophic lake in the Nedremaa peat-bog, but the shores of that lake constitute a more mesotrophic habitat than a raised peat-bog proper. In Central Estonia, another pair was observed in this year nesting in a sedge association of the Imsi bog lake, but its shores are not typical of a bog-pool either. However, in June the species was repeatedly observed (nestlings later found as well) on the bog-pools of a raised peat-bog lying to the SW of that lake (Fig. 2). This locality is the first recorded nesting place of the Common Gull in Estonian peat-bogs. The bird continued to nest on these bog-pools up to 1960, but then disappeared, since the Imsi peat-bog



FIG. 2. Nesting place of a Common Gull pair in a hollow-pool complex of the Imsi peat-bog. Photo by E. Kumari. June 13, 1953.

became too dry because of peat production there.

In 1953 I was on an excursion together with the Latvian ornithologists E. Taurinš and K. Vilks in the Taures raised peat-bog near Strenči (North Latvia), and on May 22 we found a nest of the Common Gull with three eggs in it on an islet in a bog-pool (Fig. 3). The nesting place of this bird was situated at some distance from nests of the Herring Gull. In this connection it should be pointed out that from the very beginning of its nesting in Estonian and Latvian peat-bogs the Common Gull has not avoided the company of the Herring Gull and has settled in its close neighbourhood. The Herring Gull, a larger and stronger species, which obtains its food from the far-away coastal areas (where it

often devastates the nests of other birds), has not molested the Common Gull nesting in the same peat-bog. Up to the present time the Common Gull and the Herring Gull are to be found nesting together on the same bog-pools and systems of bog-pools.

Observations carried out in the Nätsi peat-bog in 1954 and 1955 confirmed that several Common Gull pairs had begun to nest in an extremely swampy area of bog hollows in the northern part of this peat-bog as well as in the hollow-pool complex of the pine bog lying to the south, i.e. the area that had been occupied by the Herring Gull as early as in 1940 and where this species had a sparse nesting colony. In the course of the following 10–25 years, the Common Gull also colonized the Rae, Suurekivi, Lauka, Sirtsu and Muraka peat-bogs in North Estonia, the Turba, Marimetsa, Kõima, Lavassaare and Nigula peat-bogs in W Estonia, the Keava, Rogene and Linnusaare peat-

bogs in Central Estonia and the Meerpalu and Meelva peat-bogs in SE Estonia. This process of colonization was most intense in the 1960s, when in some cases the numbers of the Common Gull exceeded those of the Herring Gull, the former colonizer of hollow-pool complexes. At the present time over 20 raised peat-bogs in Estonia are colonized by the Common Gull, the number of nesting pairs being at least 220. Of the 300 pairs nesting nowadays in Latvia, 200—250 pairs are breeding on peat-bogs (J. VIKSNE, oral communication), which indicates that the Common Gull has a preference for peat-bogs in Latvia.

While the Common Gull was becoming a regular breeding bird in Estonian peat-bogs (chiefly during the period 1955—1965), it decreased considerably in numbers or disappeared totally from several West-Estonian lakes (Nehatu) and pools (Oidremaa, Avaste), as well as from the former water meadows of the Kasari Delta. It is most likely that changed living conditions (drying) caused the species to abandon its former habitats (in the 1930s at least 200 pairs inhabited the meadows of the Kasari Delta).

By the middle of the 1960s the Common Gull was already more numerous than the Herring Gull in a number of peat-bogs (the Nätsi and Muraka peat-bogs in Estonia, the Kemeru peat-bog in Latvia, etc.). In 1969 it made its first appearance in the Nigula peat-bog,

Fig. 3. Nesting place of a Common Gull pair by a bog-pool of the Taures peat-bog (near the standing man). Photo by E. Kumari. May 22, 1953.



SW Estonia, and in the following years its numbers grew considerably (LRDT & VILBASTE, 1974). In 1970 the ratio of the Common Gull and the Herring Gull was 3:1 in the Nätsi peat-bog and 2:1 in the Meelva peat-bog. In 1970 the Common Gull was first observed in the Laukssoo peat-bog, N Estonia, and there are other peat-bogs which have been colonized by the Common Gull only during the last few years. This process is most likely to continue, while the numbers of the Herring Gull are chiefly increasing on the coastal islands (KUMARI, in press). At the present time ca. 60 Common Gull pairs nest in the Nätsi peat-bog, at least 25 pairs in the Marimetsa peat-bog and at least 20 pairs in the Muraka peat-bog — the largest numbers recorded in peat-bogs.

Though the Herring Gull and the Common Gull share their habitats in the Estonian peat-bogs and nest under identical conditions, their feeding habits differ greatly. The Herring Gull does not search for food in the neighbourhood of the peat-bogs, but flies to the sea or large lakes lying scores of kilometres away. In contrast, the Common Gull obtains its food from fields, meadows and large and small water bodies in the neighbourhood of the peat-bogs. It is often met with following the ploughman in the field (together with the Blackheaded Gull) or searching for food in the dumps in the vicinity of human settlements. Nevertheless, the Common Gull nesting in the peat-bogs of Estonia has not become as dependent upon scraps of food left by human beings and animals as the Herring Gull appears to be in some seasons. Moreover, unlike the Herring Gulls nesting on coastal islands, the Common Gulls nesting in the peat-bogs have not been accustomed to devastating the nests of the birds sharing their habitat. The

relations between the Common Gull and the Herring Gull inhabiting the same bog-pools are neutral, and there is no competition between them for nesting places and resting places. Similarly to the Herring Gull, the Common Gull is used to standing sentinel in the upper leaf canopy of dwarf pines in the neighbourhood of the nesting places. A considerable part of the Common Gull individuals spending their summer on the bog-pools are not nesting birds, and this constitutes a potential reserve for breeding birds.

In this connection the following questions arise: what are the reasons for the Common Gull's increasing colonization of bog-pools during the last two decades and where do these birds come from? The probable causes can only be guessed. Among the Common Gulls settling in peat-bogs, youngish birds with dark feathers in their mantle have repeatedly been met with. Consequently, among them there are young individuals who have not yet attained sexual maturity and who have come from other densely populated habitats, primarily small islands and coastal areas where there is some overpopulation. The peat-bogs constitute an incompletely filled "ecological niche", which forms an appropriate reserve for the expansion of the range of the species. Since the Common Gull appears to be fairly eurytopic, the reasons for its colonization of the peat-bogs seem to be quite plain. A similar shift to less productive breeding habitats has been observed in a number of wader species (KUMARI, 1972).

The 1960s appear to be a period of conflicting trends in the spread of the Herring Gull and the Common Gull, the two gull species characteristic of the peat-bogs of Estonia at the present time. The Herring Gull, whose numbers in the peat-bogs had grown and

stabilized, started to emigrate increasingly to marine habitats. The Common Gull, the overwhelming majority of whose specimens had inhabited coastal areas and islands, increased in numbers and spread to peat-bogs. The numbers of the two species are at present much greater in marine habitats than in peat-bogs, but the numbers of the Herring Gull in the peat-bogs are continuously decreasing, while those of the Common Gull are increasing.

The Blackheaded Gull has also started to colonize peat-bogs, though only to a small extent at the present time.

Selostus: Kalalokin yleistymisestä ja pesimisestä Viron turvesoilla viime vuosikymmeninä

1950-luvulle asti Viron kalalokit pesivät pääasiassa rannikoilla ja vain vähässä määrin sisämaan järville. Siitä lähtien ne ovat laajentaneet aluettaan sisämaahan ja asettuneet kohosille, ja tämä leviäminen jatkuu yhä. Samanaikaisesti harmaalokki, aikaisemmin yleinen soiden pesimälintu, on levinnyt niiltä rannikoiden saarille. Kalalokin leviäminen johtuu todennäköisesti sopivien rannikkobiotooppien ylikansoituksesta. Nykyisin kalalokkeja pesii Virossa yli 20 suolla, ja niiden kokonaismäärä on vähintään 220 paria. Myös Latviassa lajista on tullut yleinen soiden pesimälintu.

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