

# Kittiwake 1959

## Title

Kittiwake Enquiry 1959

## Description and Summary of Results

A specific survey of the Kittiwake *Rissa tridactyla* colonies in NE England and SE Scotland showed that there had been a considerable increase in the numbers breeding in that area in the 1950s, at a rate comparable to that which has taken place in the Fulmar *Fulmarus glacialis*, but which had not previously been recorded. This was probably because fewer new breeding sites had been colonised than in the Fulmar and much of the increase in the Kittiwake had been by increasing numbers at existing sites.

A more widespread survey, run in conjunction with one on Fulmars, was set up to determine the extent of this increase, and also to obtain a series of accurate counts of the numbers at individual sites to act as a basis to measure future changes in the population. It had been thought that the Kittiwake numbers were highest in the Hebrides and on the west coast of Scotland. However the survey found that it was most numerous on the east coast of the British Isles, and that there were fewer breeding stations in the Hebrides and on the west coast of Scotland and in Ireland. This can be partly explained by the lack of suitable precipitous cliffs along much of the west coast of Scotland, but there are also many areas with apparently suitable cliff structure which do not support breeding stations.

Only the breeding stations in England and Wales were covered in sufficient detail to obtain a reliable estimate of the total breeding population. In 1959, this total was about 37000 pairs, of which just over half nested at Flamborough Head. The population was therefore of the same order as that of the Black-headed Gull *Chroicocephalus ridibundus*. (Note that previous estimates of 6000-8000 pairs of Kittiwakes breeding in England in the 1940s were a gross underestimate, as they apparently did not include the very large colony at Flamborough. A figure of 27000 pairs would have been a more realistic value.)

A rough estimate of the Kittiwake population in Scotland and Ireland was made by assuming the average number of pairs per station in England and multiplying by the number of known stations in Scotland and Ireland. With probably 109 stations in Scotland and 39 in Ireland in 1959, the breeding populations were therefore about 100000 and 36000 pairs respectively, making a total breeding population of Great Britain and Ireland of 170000-180000 pairs, although this was almost certainly an underestimate because there were probably several unrecorded stations in Shetland, Orkney, and Ireland, while the average size of a breeding station in Scotland was probably greater than in England and Wales.

In England and Wales, the Kittiwake was probably increasing by about 3% per year. But in some areas, the rate of increase was considerably higher. It was thought that the increase of the Kittiwake started about 1900, and until 1920, most of the increase resulted in the enlargement of existing breeding stations. Since 1920, the number of new breeding stations had increased at the same rate (3%) as the breeding population.

Guillemots *Uria aalge* were breeding in 51% of Kittiwake sites, Fulmars in 50%, Razorbills *Alca torda* in 33% and Gannets *Morus bassanus* in 6%. Herring Gulls *Larus argentatus* nested near most, but rarely among the Kittiwakes.

Typically, the Kittiwake nests on small ledges and projections on vertical cliff faces. Comparison of the height of cliffs used for breeding suggested a considerable decrease in the height of cliffs selected by Kittiwakes for new breeding stations.

### **Methods of Data Capture**

Observers were asked to count the number of nests at each site found. Breeding sites were considered separate where there was a gap of at least 200m of unoccupied coast line. 'Breeding station' was used to describe an arbitrary unit consisting of all colonies, or colony groups, with less than one mile (ca 1.5km) of unoccupied terrain between each other. Observers were also asked to provide as much information as they could on such as: time of the return to the breeding site; the time of breeding; clutch size; breeding success and nest predation. A particular request was to determine the fate of any 3-egg clutches as the Kittiwake only rarely lays 3 eggs unlike other gulls which normally lay 3. In addition numbers of non-breeding birds (often at sites before they become breeding sites) and any historical information on numbers at sites were welcomed.

### **Purpose of Data Capture**

The aims were to determine the status of each site including how many birds were using it and to get as much information on breeding biology as could be gathered.

### **Geographic Coverage**

All of the British Isles.

### **Temporal Coverage**

The breeding season of 1959.

### **Other Interested parties**

The survey was organised and run by John Coulson as a Trust-aided Enquiry while he held a Senior Studentship of the Royal Commission for the Exhibition of 1851.

### **Organiser(s)**

John Coulson

### **Current Staff Contact**

archives@bto.org

**Publications**

The main report of the survey is:

Coulson, J.C. 1963. The status of the Kittiwake in the British Isles. *Bird Study* 10: 147-179.

The survey was noticed in *Bird Study* issues for December 1958 (vol.5), all 4 issues for 1959 (vol.6) and for March 1960 (vol.7).

**Available from NBN?**

No.

**Computer data -- location**

None.

**Computer data -- outline contents**

N/A.

**Computer data -- description of contents**

N/A.

**Information held in BTO Archives**

1 folder containing letters and comments on the report. The data were lost many years ago although a full summary of each colony appears as an appendix to the published report.

**Notes on Access and Use****Other information****Notes on Survey Design****Specific Issues for Analysis**