

ON THE BREEDING-HABITS OF THE GLAUCOUS GULL AS OBSERVED ON BEAR ISLAND AND IN THE SPITSBERGEN ARCHIPELAGO.*

BY

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ALTHOUGH the Glaucous Gull (*Larus hyperboreus*) is a tolerably common winter visitor to parts of our coast line, only the most scanty notes describe the nidification and breeding habits of this most interesting circumpolar Gull in the annals of British ornithology. In the New World, however, Mr. Bent has recently collected a good deal of information on this subject from observations made in the north of the Continent (*Life Histories of North American Gulls and Terns*, 1921.) Messrs. Seebohm, Harvie-Brown and Pearson seem to be the only Englishmen who have made any study of the nesting of this Gull, as against observations collected from numerous sources by Mr. Bent. Pearson's notes made during a brief half-hour's visit to the sandy island of Korga, off the Kanin Peninsula (*Three Summers among the Birds of Russian Lapland*, 1904) were certainly not surpassed by Seebohm's and Harvie-Brown's short account of their visit to the Golaievskai Islands, in the Petchora River. Von Middendorf and other foreign ornithologists found the gull breeding along the coasts of Arctic Russia, though not very abundantly it would seem from Von Middendorf's account of the scattered pairs on the Taimyr River. In Spitsbergen, Martens was the first to record the bird in 1675, and Koenig has given us accurate details. In north-east Greenland, Manniche found it nesting but only obtained two eggs, and Winge reports it breeding in the south and west.

The most accessible breeding-place of this bird is without doubt on the Westmann Islands, off the coast of Iceland, but the scattered pairs on these islands hardly compare with the colonies of Bear Island and Spitsbergen.

From observations made by Koenig in 1907 and 1908, and by ourselves in 1921, Bear Island seems to be more or less the headquarters of this Gull as a breeding species in the Old World. Koenig found it nesting on Gull Island, a small rocky islet standing some 300 ft. above the sea, thinly covered in places with turf-like moss. He found most of his nests about June 17th, on the shingle at the bottom of

* No. 11 of the "Results of the Oxford University Expedition to Spitsbergen."

the cliffs round the southern end of Bear Island, just above high-water mark. From other evidence as well as this, the Glaucous Gull chooses a variety of nesting sites. Seebohm's party record the nests as mounds of sand with a hollowed apex scantily lined with sea-weed (*Ibis*, 1876, p. 453), and



NEST OF GLAUCOUS GULL.
Edinburgh Islands, Spitsbergen.
(*Photographed by Seton Gordon.*)

Pearson found the birds nesting in sand dunes. We found the Gull breeding for the most part on sharply sloping grass inclines above precipitous sea-cliffs some 600 ft. high. We also found it breeding some distance inland on the crags opposite Mount Humbers, Bear Island, and at Ebba Valley,

Spitsbergen. Again further north we met with it on small rocky islets in Liefde Bay and on Moffen Island, an extensive shingle-bank out at sea, over lat. 80° N. Then again, we found it on grassy ledges at Cloven Cliff and Vogel Hoek, and lastly at Mount Congress, Dickson Land and Advent Valley, on isolated pinnacles or bastions of rock. The colonies on Bear Island were larger than any we noted in the Spitsbergen Archipelago.

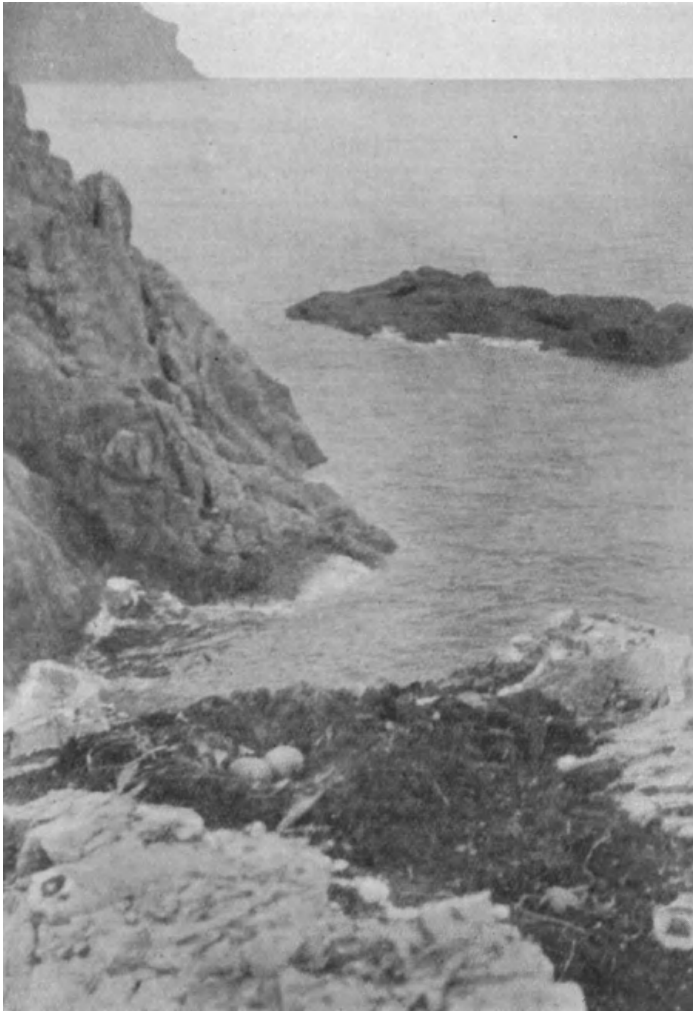


NEST OF GLAUCOUS GULL.

Moffen Island, Spitsbergen.

(Photographed by Seton Gordon.)

We landed on Bear Island on June 13th in the afternoon, in spite of a fairly heavy sea. Landing on Bear Island is always difficult and very often impossible and we were lucky to get on and off so easily. The cliffs were teeming with Fulmar Petrels (*Fulmarus glacialis*), Kittiwakes (*Rissa tridactyla*) and in the air, Glaucous Gulls. The Fulmars laid their single white eggs not only on the cliff faces, but on the top where the rapacious Glaucous Gulls found them easier to appropriate than on the narrow ledges and pockets of the rock. On more than one occasion we caught them—*flagrante*



NEST OF GLAUCOUS GULL.

Cliffs near Mount Misery, Bear Island.

(*Photographed by A. H. Paget Wilkes.*)

delicto. Near the top of the cliff on the promontory running out towards Gull Island, we found our first gull's nest, containing two eggs. It was placed in a depression in the soil where the top of the cliff on the one side fell a sheer 400 ft. to the sea and on the other side sloped away by easy gradations. There was little enough material, the nest consisting of a few pieces of moss, some medium sized chips of stone and a feather or two from the bird itself.

The next day being calm we rowed round to Gull Island, where we landed with some difficulty. Here we found scores of Fulmars sitting on depressions in the soil, containing in most cases nothing at all, but in several containing a stone about the size of the bird's egg. It is possible that some of the Fulmars' eggs had been eaten by the Gulls, as we subsequently saw done, but it seems more probable that the Fulmars were on the point of laying. There were also some twenty pairs of Glaucous Gulls here, just beginning to nest. Later, I went down alone to the water's edge on the south side of the island and found some more unfinished nests on the broad stone ledges half way down. One nest, apart from the rest, was complete, with the bird sitting on three eggs. The nest was a bulky structure of pieces of moss, dry sea-weed, wrack, etc., and contained quite a number of the bird's small feathers. The two birds both stood on a rock near by uttering their wild, yelping cries and taking an occasional short flight, usually coming back to the same rock. The eggs were fresh (June 14th) and were the only complete clutch we obtained on Gull Island, and are now in my collection. Near this nest I found another with two eggs. Sometimes the nests were only scrapes, barely lined with dry, brown moss; others were great piles, a foot high, of green moss, roots, saxifrage, seaweed, etc.; the moss often being soaking wet. The following day was very misty as we set out along the cliffs towards Cape Kolthoff. We met one or two outlying pairs of gulls, all nesting in typical Herring-Gull sites on broad, grassy ledges or slopes of shale, before we came to one of the colonies. The cliffs were some 400 ft. high and above them steep slopes of turf-like moss and screes of small stones half covered by the moss in places. On the slopes where the moss had gained a complete hold a small colony of Glaucous Gulls had made substantial nests, in some cases on the very edge and never more than 50 yards from it. Here we found sixteen eggs in six nests. Some of these were on the point of hatching, but in this colony we also found two nests not yet laid in.

The day after this we went northwards along the coast towards Mount Misery and found several small colonies of nests on some low cliffs, one nest containing chipping eggs. On examination of this nest the parent birds became very demonstrative and one "stooped" at my head repeatedly in the same way as I have seen *L. marinus* do. We then found a colony of twenty-eight pairs nesting on broad grass and rock terraces forming low cliffs. Round several nests one saw bones and feathers of Kittiwakes and Guillemots



TWO YOUNG GLAUCOUS GULLS AND NEST.

Moffen Island, Spitsbergen.

(Photographed by Seton Gordon.)

(*Uria l. lomvia*). At one nest alone there were three of the former and one of the latter. Of these nests only five contained clutches of two, but I think there is hardly any doubt that two is as typical a clutch as three. In this colony we found two young in down with a chipping egg, which shows that eggs must have been laid during the second week in May. Here again, the eggs were mostly in an advanced stage of incubation, our dates thus coinciding with those of Koenig. The next day, June 17th, Mr. Brown found a colony on the west coast at Cape Harry numbering over twenty pairs. Eggs from this colony were highly incubated with one or two exceptions

which were perfectly fresh. On June 22nd we went over to the great Guillemot colony near Cape Bull. In the middle of the Guillemot territory we came upon some twenty pairs of the Glaucous Gull nesting. A number of nests contained young in down of some size. A few were running about on the cliff and were nearly the size of an adult partridge. The parent birds exhibited great anxiety, but I carefully noted that only one bird ever attempted to "stoop" at me. Here I saw at least two Gulls eating the Guillemot's eggs. Mr. Jourdain went on about half a mile to Cape Bull itself, where he found a large colony of some 50-60 pairs. The five best clutches which he selected from the colony all proved perfectly fresh, so that here we saw two colonies, within sight of one another on the same stretch of cliff, the one with young in down of considerable size, the other with empty nests and fresh eggs. On Mofen Island we found a similar state of affairs, but the fresh eggs might have been second layings, since the island is often visited by sealers.

Owing to the inaccessibility of their breeding-grounds and the short periods which one is able to spend with them, few consistent or connected observations can be made of the home life of the Glaucous Gull, but the only chance of obtaining a more complete knowledge is by making as many careful observations as time and circumstance permit in the hope that the aggregate will some day assume the proportions of a record of value. Koenig's and Mr. Jourdain's measurements for the eggs of the Glaucous Gull are as follows:—

Koenig, 65 eggs.		Oxford Expedition, 115 eggs.	
Av. :	77·17 × 53·19 mm.	Av. :	76·81 × 53·98 mm.
Max.:	83·6 × 54 and 76·6 × 56·4	Max.:	89 × 60·9
Min.:	72·3 × 51·3 and 74·5 × 50·1	Min.:	69 × 56·1 and 75·5 × 50·8