The following shows measurements of eggs:

A set of five rather long eggs:  $2.59 \times 1.79$ ,  $2.69 \times 158$ ,  $2.73 \times 179$ ,  $2.60 \times 1.80$ ,  $2.57 \times 1.79$ .

A set of five rather round eggs:—  $2.56 \times 1.93$ ,  $2.58 \times 1.86$ ,  $2.51 \times 1.89$ ,  $2.48 \times 1.91$ ,  $2.50 \times 1.90$ .

A set of three extremely large eggs:  $2.76 \times 1.94$ ,  $2.75 \times 1.91$ ,  $2.74 \times 1.92$ 

A set of three extremely small eggs:  $2.45 \times 1.82$ ,  $2.51 \times 1.80$ ,  $2.52 \times 1.72$ .

A set of six typical eggs:  $2.57 \times 1.83$ ,  $2.61 \times 1.77$ ,  $2.55 \times 1.78$ ,  $2.56 \times 1.79$ ,  $2.57 \times 1.81$ ,  $2.58 \times 1.80$ ,  $2.574 \times 1.816$ .

The average size, taken from ten sets,—namely: three sets of three each; four sets of four each; two sets of five each; one set of six, is  $2.574 \times 1.816$  inches.

I endeavored this year to ascertain the exact length of time required for incubation; also from hatching to flight; but found it impossible, owing to the distance and time consumed in reaching their breeding ground.

These notes have been culled from data taken by my father and myself. Trusting that this may be of some little benefit to you, I remain,

Your most sincere friend,

A. O. TREGANZA.

## LARUS KUMLIENI AND OTHER NORTHERN GULLS IN THE NEIGHBORHOOD OF BOSTON.

## BY FRANCIS H. ALLEN.

In reporting in "The Auk" for April, 1905 (Vol. XXII, p. 205) the taking of a Kumlien's Gull at Moon Island, Boston Harbor, on February 22, 1905, I ventured, though the bird had not previously been recorded from Massachusetts, to say that its presence here was "probably in a sense normal rather than accidental, being simply a southward extension of its usual winter range in a season of unusual severity." The experience of the past winter (1907–08) seems to indicate that *Larus kumlieni* is indeed of normal occurrence on the Massachusetts Coast and not by any means

Dr. Dwight has since recorded an earlier specimen, a young female taken at Plymouth, Mass., January 5, 1888, and now in the Rothschild Museum at Tring, England (Auk, Jan., 1906, XXIII, 41).

confined to the coldest seasons. This last winter was an exceptionally open one up to the latter part of January, and even after that was not unusually severe, but Kumlien's Gull was seen as early as December 29, some days before the last Geese went south, and as late as March 13, a day after the arrival of a great wave of Robins, Bluebirds, Song Sparrows, etc., from the south. The first of these birds was seen by me, December 29, 1907, at T Wharf, Boston Harbor, where the gulls congregate about the fishing schooners. It came within close range repeatedly and was identified beyond question. The dark markings at the ends of the primaries were perfectly distinct though of course much more restricted than those on the Herring Gull's wings. This bird (or one like it) was also observed at the same place by Rev. Horace W. Wright, January 18, 1908, and by Dr. Charles W. Townsend, February 7, both of whom identified it positively.

Mr. Wright also permits me to record two other birds of this species seen by him. One was on the Charles River Basin, Boston, February 10. "It came flying in and lit on the ice, and subsequently took successive flights back and forth before me. For some time I did not detect the gray spaces on the wings, but finally saw them to be unmistakable. The mantle and wings were like those of the Kumlien seen at T Wharf, but it would seem as if the gray wing-spots could not have been as prominent as in the case of that bird. But it may have been the identical bird. This Kumlien showed plainly the red spot at the angle of the bill. I did not perceive this mark on the T Wharf bird, but would not affirm that it was not there." I have quoted Mr. Wright's account in full in order to show the care with which the observation was made. The other bird was seen February 26 on Chestnut Hill Reservoir in the Brighton district of Boston. It rose among a flock of Herring and Great Black-backed Gulls and, "gradually ascending in the air, flew away eastward."

The next Kumlien's Gulls to be observed of which I have knowledge were two seen by myself in a flock of gulls off King's Beach, Swampscott, March 7. They were sitting in the water and, when viewed with a telescope, showed the wing-spots distinctly as they sat. These spots were darker on one than on the other. The bills of both were noticeably smaller than the bills of the Herring

Gulls with which they were associated, and the birds themselves were plainly smaller, though the difference in the bills was more considerable. One of them flew a short distance while I was watching him, and then the wings (at that distance and seen only for an instant) appeared immaculate. The black on the Herring Gull's primaries is very conspicuous in the closed wing, forming a large blotch, while the spots on the Kumlien's Gulls' wings showed only as marks on the separate feathers. Finally, a gull of this species, presumably one of the two observed by me March 7, was seen by Mr. Wright, March 13, at Fisherman's Beach, Swampscott, the next beach down the coast from King's beach. It identified itself by spreading its wings as it sat in the water off shore. All these birds — or both, if it be assumed that there were but two seen at different places — were in the adult plumage.

In connection with this report of Kumlien's Gull, it will be of interest, I think, to note the presence of other northern gulls in somewhat unusual numbers during the past winter. Indeed, the information which I have at hand suggests that neither Larus glaucus nor L. leucopterus is by any means as rare on the Massachusetts coast as the published records would indicate. scarcity of such records is partly due to the very laudable hesitation on the part of observers to record birds which are only seen, not taken. It so happens, however, that most of these northern gulls which are seen here are found on protected shores or waters, where shooting is prohibited, so that some interesting occurrences must go entirely unrecorded unless the rule — in general very proper which demands a specimen to back the record is waived in their favor. It is very probable, too, that the gulls in question are now of recent years more abundant here than formerly, for it is certain that the Herring and Great Black-backed Gulls which winter on our coast have increased under the protection afforded them. the gulls, moreover, are much more approachable when found on protected ground than they were formerly, and flocks can be readily scanned in search of the rarer species. After conversation with several observers I have deemed it proper to make some statement concerning the recent occurrences of the Glaucous and Iceland Gulls in Massachusetts. The Rev. Horace W. Wright and Dr. Charles W. Townsend, both well known as experienced and careful observers, have kindly furnished me with their notes on these species for publication in connection with my own.

The first of our records is of an immature Glaucous Gull at T Wharf, Boston Harbor, seen by me, February 16 and 23, and by Dr. Townsend, February 20, 1905. This may have been the same bird as that recorded by Mr. Brewster (Birds of the Cambridge Region, p. 92) as having been seen by Mr. Glover M. Allen off Harvard Bridge, January 20 of that year. Another immature bird of this species was seen by Dr. Townsend at Nahant Beach, January 7, 1906, and still another by the same observer at Ipswich, May 26, 1907. Of the Iceland Gulls (*Larus leucopterus*), Dr. Townsend observed one in the Charles River Basin, February 1, 1906, one in immature plumage in Boston Harbor, February 17, 1907, and another, or perhaps the same, young bird in the Basin, March 13. The Harbor bird was seen by me, February 16, at T Wharf. I heard its note once or twice,— practically identical, as it then seemed to me, with the familiar creak of the Herring Gull.

In January, February, and March of this year a company of white-winged gulls, varying in number and composition, was continually seen in a flock of Herring Gulls which frequented King's and Fisherman's Beaches at Swampscott, Mass. These birds were first found January 7 by Mr. Wright, who visited them also on January 13 and 21, February 11, and March 13. On February 22, Dr. Townsend and I saw them, and I observed them also February 29 and March 7. Unfortunately, it was never possible to identify positively every bird in this company, which varied in number from four to seven. Certain individuals, however, were determined beyond the possibility of error. At least two immature Glaucous Gulls were identified, and at least three immature Iceland On January 13 Mr. Wright saw two Glaucous Gulls in the pure white plumage there. On the occasion of the visit of Dr. Townsend and myself, February 22, a single adult Glaucous Gull was included in the flock. This was the only adult bird belonging to either species which was noted in this flock, and it was seen but this once. The presence of this bird on this single occasion and that of the two Kumlien's Gulls in the same flock on March 7, and one of that species on March 13, indicate that the make-up of the flock was constantly changing, though doubtless certain individuals remained in the locality most of the time.

At other places on the coast the records for the winter are as follows:—

1 adult Glaucous Gull in Boston Harbor, February 7 (Dr. Townsend).

1 young Glaucous Gull at Ipswich, March 1 (Dr. Townsend).

1 Glaucous Gull in pure white plumage at Marblehead Neck, February 27 (Mr. Wright).

1 young Iceland Gull (?) at Devereux, January 16 (Mr. Wright).

1 young Iceland Gull (?) at Lynn Beach, February 22 (Mr. Wright.)

1 young Iceland Gull (?) at Marblehead Neck, February 27 (Mr. Wright).

The last three birds were not identified positively as to size, and one or more of them may possibly have been L. glaucus.

It is not particularly difficult for the trained observer to distinguish the white-winged gulls in the field from the Herring Gull; but as between L. glaucus and L. leucopterus a positive identification is not so easy, and probably cannot be determined with certainty unless the bird is seen under very favorable conditions and with other gulls close by with which to compare it as to size. One soon gets to recognize the white-winged species flying. even at a considerable distance, and the smaller size of the Iceland Gull is seen perhaps more distinctly on the wing than when the bird is sitting. The bill, when it can be distinctly seen, is an excellent field-mark, the Iceland Gull's, like that of Kumlien's Gull, being much smaller in proportion than are the other dimensions, as is shown by the measurements given by Dr. Dwight in 'The Auk,' January, 1906 (Vol. XXIII, p. 28). The adult Kumlien's Gull, when seen under favorable conditions, is easily distinguished from L. glaucus and L. leucopterus, for the spots on the primaries cannot fail to be noticed whether the bird is sitting or flying.

Of course the foregoing records lack the definiteness that would have attached to them had it been possible to take specimens in each case, but I trust they will be accepted for what they are worth. At any rate, it has seemed to some of us that it would be worth while to publish them, in the interests of defining the status of these three species as winter visitants to the Massachusetts coast, and with the hope of inciting other observers to watch for them both there and elsewhere.