

ON AN APPARENTLY NEW GULL FROM  
EASTERN NORTH AMERICA.

BY WILLIAM BREWSTER.

In a recent issue of this Bulletin\* I recorded a supposed specimen of *Larus glaucescens*, from the Bay of Fundy, and Mr. Merrill, on the same page, announced another captured near Grand Menan. At that time neither bird had been compared with typical specimens of *glaucescens*, but both agreed so well with descriptions, especially in the peculiar "washed out" appearance of the primaries (a character said to be diagnostic of *glaucescens*) that there seemed to be no reason for doubting that they really belonged to that species. Moreover, there was nothing at all improbable in the occurrence of *glaucescens* on the coast of New England, for Kumlien had reported it as breeding at Cumberland Sound,† whence it would be likely to follow the Atlantic Coast in its migrations southward. At least so I reasoned at the time, but, as will presently appear, there was more than one hidden flaw in the evidence upon which my conclusions were based.

Shortly after the publication of the notes above mentioned, Mr. Merrill was kind enough to send me his specimen for examination, and at about the same time another, of which I had not previously known, was received from Mr. Everett Smith. Finding that both were similar to Mr. Welch's bird (the Bay of Fundy specimen), and that all three had certain peculiarities not ascribed to *glaucescens*, I determined to investigate the matter further and to this end applied to the National Museum for the loan of an adequate series. Through Professor Baird's and Mr. Ridgway's kindness this series was promptly forwarded, and is now before me. It includes several typical *glaucescens*, both adult and immature; one of Kumlien's supposed *glaucescens* from Cumberland Sound (the only one brought back by him, or at least in the National Collection, I understand); and some examples of *L. leucopterus*. In addition to these specimens I have been able to

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\* Vol. VIII, No. 2, April, 1883, p. 125.

† Contrib. to Nat. Hist. Arc. Am., pp. 98, 99.

bring together from other sources a number of examples of *L. glaucus* and *L. leucopterus*, and two more *L. glaucescens*.

A critical study of this material has resulted in the following conclusions: (1) That the Gulls from Grand Menan and the Bay of Fundy are identical with the Cumberland Sound specimen. (2) That they represent a form distinct from *L. glaucescens*. (3) That this form is not referable to any species or variety now recognized by the best authorities on *Laridæ*.

Before going further it is necessary to revert to a Gull which has given systematists no little trouble; this is *Larus chalcopterus*. The name was instituted\* by Lichtenstein in 1854, without accompanying characterization. In the following year Bruch identified with it a Gull of which he gives the following brief description: † "Wholly similar to the preceding [i. e. *L. leucopterus*] except in the primaries, which are ash-gray with round white terminal spots. The young plumage, as with *L. glaucopterus* [= *L. glaucescens*], is dark gray. Habitat, American Coast of Behring's Straits and Greenland."

This description, as far as it goes, agrees well with the bird which we are about to consider, but let us trace the history of *chalcopterus* a little further.

It was admitted as a valid species by Lawrence in 1858, ‡ and similarly acknowledged by Coues in 1862, § but the latter author has recently united it with *L. glaucescens*, || remarking that "there is not the slightest likelihood that it is anything more than *glaucescens*, probably in somewhat immature condition."

Neither Lawrence nor Coues claimed to have seen specimens of *chalcopterus*, but Saunders has been more fortunate. He examined Lichtenstein's type, which turned out to be merely an example of *L. leucopterus*. Concerning Bruch's bird he was evidently in doubt, for a ? is prefixed to the reference which is given among the synonyms of *leucopterus*; while the *chalcopterus* of Lawrence and Coues is placed under *glaucescens*. ¶

The gist of all this seems to be that the original *Larus chalcopterus* was simply *L. leucopterus*. As to Bruch's *chalcopterus*

\* Nomencl. Av. Mus. Berol., p. 99. 1854.

† J. f. Orn., 1855, p. 282.

‡ B. N. A., 1858, p. 843.

§ Proc. Phila. Acad., 1862, p. 295.

|| Birds N. W., pp. 622, 624.]

¶ Proc. Zool. Soc. of London, Feb. 5, 1878, pp. 166, 167.

we can at present only speculate, although there are some reasons for believing that it was the same with the bird which Kumlien found at Cumberland Sound. But in view of the uncertainty connected with this point it seems better to re-name the bird, which I do as follows :

**Larus kumlieni** sp. nov. LESSER GLAUCOUS-WINGED GULL.

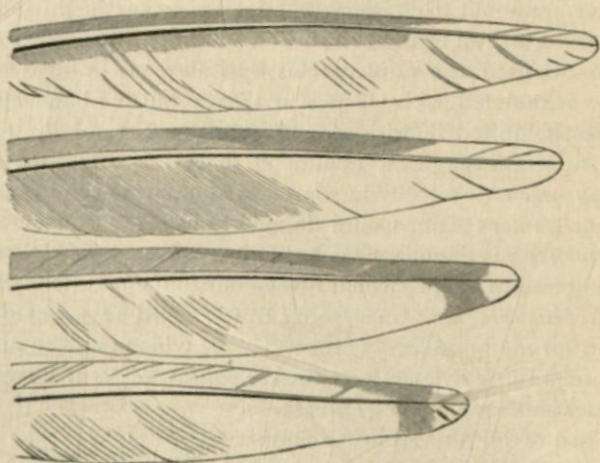
? *Laroides chalcopterus*, BRUCH, J. f. Orn., 1855, p. 22 (nec Licht.).

? *Larus chalcopterus*, LAWR., B. N. A., 1858, p. 843; COUES, Proc. Philad. Acad., 1862, p. 295.

*Larus glaucescens*, KUMLIEN, Contrib. to Nat. Hist. Arc. Am., pp. 98, 99; BREWSTER, Bull. N. O. C., Vol. VIII, No. 2, p. 125; MERRILL, *loc. cit.*

CH. SP.— Similis *L. glaucescens*, sed minor; magis candidus; pennis candidioribus; colore atro in remigibus angustiore ac magis distincto a partibus candidioribus.

♂, adult, breeding plumage (No. 76,225, Coll. Nat. Mus., Cumberland Sound, Arctic America, June 14, 1878. L. Kumlien). Bill short, stout, and comparatively straight, the convexity of the upper mandible slight and the angle of the lower mandible not strongly marked. First primary\*



longest. Tarsus about equal to middle toe and claw. Head, neck, tail, and entire under parts snowy-white; mantle pale pearl-blue, much lighter than in *argentatus* and *glaucescens*, about as in *leucopterus*. Primaries

\* I am indebted to Mr. Ridgway for the drawing from which the accompanying illustration was made.

and secondaries mostly white on their exposed surfaces, with markings of dull slate-gray. Primaries: *First*, snow white on both webs for a terminal space of about two inches, and white to its base on the inner web, except next the shaft; outer web (except terminally) slate-gray, shading insensibly into white near the base of the feather and bordered by a stripe of about its own width, but of a lighter shade, on the inner web next the shaft, which is strongly tinged with the same color. *Second*, with the gray confined to a space of about four inches on the outer web, where it touches the shaft for a distance of scarcely more than an inch, receding from it very gradually towards the base, abruptly in the other direction, at both ends tapering to a point on the margin of the feather; the base of this primary is tinged on both webs with the color of the mantle, which, on the inner web, fades imperceptibly into white about three inches from the tip, but on the outer is deepest at the point of junction with the gray stripe, where the line of demarkation is nevertheless perfectly distinct; there is also an indication of a sub-terminal bar in a transverse spot of dusky on the inner web about half-an-inch from the tip. *Third*, with the gray occupying the entire outer web for a space of rather more than two inches at its basal end, tapering gradually away from the shaft, as in the second primary, but at the other extremity crossing the inner web of the feather and forming a well-defined and continuous sub-terminal bar of about half-an-inch in width, which confines the white to a rounded terminal spot and a short space on the inner web, the remainder of the feather being tinged with the color of the mantle. *Fourth*, with the slate paler and more restricted but still forming a perfect sub-terminal bar. *Fifth*, with the gray confined to two transverse sub-terminal spots on the opposite edges of the feather and separated by a wide space of white next the shaft; this feather is otherwise similar to the remaining primaries, which, with all the secondaries, are perfectly plain and concolor with the back to within about two inches of their tips where their pearly-blue color changes rather abruptly into pure white.

"Iris cream-color; bill yellow with vermilion spot on lower mandible; orbital ring reddish-purple; legs and feet flesh-color" (mem. on label).

*Dimensions*. "Length 24.00"; wing, 16.25; culmen (chord from feathers), 1.75; bill from nostril, .85; do. from gape, 2.60; height at anterior end of nostril, .65; height at angle, .61; tarsus, 2.35; middle toe and claw, 2.27; tail, 6.65.

*Habitat*. Cumberland Sound (Kumlien) and Greenland? (Bruch), migrating south in winter to the Bay of Fundy and Grand Menan.

The following measurements are of Mr. Merrill's, Mr. Smith's, and Mr. Welch's specimens, respectively: ♂, adult (winter pl.). Grand Menan, N. B., Jan. 21, 1883. Length, "23.75"; wing, 17.00; culmen, 1.85; bill from nostril, .89; gape, 2.75; height at nostril, .65; do. at angle, .65; tarsus, 2.30; middle toe and claw, 2.28; tail, 7.22.

Immature, sex? Bay of Fundy, Feb., 1883. "Length, 23.50; extent 50.00"; wing, 15.50; culmen, 1.65; bill from nostril, .89; gape, 2.50;

height at nostril, .56; do. at angle, .60; tarsus, 2.10; middle toe and claw, 2.15; tail, 6.90.

Adult, sex? Bay of Fundy. Wing, 16.00; culmen, 1.88; bill from nostril, .88; gape, 2.75; height at nostril, .66; do. at angle, .66; tarsus, 2.25; middle toe and claw, 2.30; tail, 6.50.

The chief characters which distinguish *L. kumlieni* from *L. glaucescens* are as follows: *Smaller size; a lighter mantle; and very different color and pattern of the primaries.* The primaries of *glaucescens* are essentially concolor with the mantle, and this coloring—uniform nearly to the tips of the feathers, where it changes abruptly into white—gives the folded wing a generally dark appearance relieved only by the rounded white apical spots which are conspicuous on all the feathers. In *kumlieni*, on the contrary, the general effect of the wing is white, the pale pearly-blue of the mantle, although present on some of the feathers, being mostly concealed, and the "pattern" produced by markings many shades darker than any color found elsewhere on the bird; while, owing to the general extension of white, there are usually only two or three primaries which have well-defined apical spots.\*

These characteristics are pretty uniformly maintained among the four specimens before me, but there is some individual as well as seasonal variation. Thus Mr. Merrill's bird differs from the type in having a more decided approach to a sub-terminal bar on the second primary, where a transverse spot of gray on the inner web is continued across to the shaft but fails to connect with a smaller corresponding spot on the edge of the outer web. It also has a dusky spot in front of the eye and some obscure mottling on the crown and nape—probably seasonal (winter) characteristics.

Mr. Smith's specimen is evidently immature. Its entire head and neck, and even the breast, are mottled with dusky, and the bill is greenish at the base. The mantle, however, is perfectly pure and the wings show no traces of immaturity. The bill is much weaker and more depressed than in the other examples. The pattern of the primaries is essentially the same, but there is a greater extension of the gray, especially on the first two

\* These differences, of course, will only serve to distinguish adults. I have not seen the young of *kumlieni*, but Kumlien states that it is "even darker than the young of *L. argentatus*, the primaries and tail being *very nearly black*." If this be true it can be readily separated from young *glaucescens*, which is much *lighter* than *argentatus*.

feathers, where it occupies a longer space on the outer webs, and on the second primary forms a complete sub-terminal bar.

In Mr. Welch's example the fifth as well as the second primary has a perfect sub-terminal bar, and the sixth shows an interrupted one; while the slate spreads over the greater part of the webs of the first three feathers, except terminally. This extension of the dark color restricts the white spaces at the ends of the second, third, fourth and fifth primaries to rounded apical spots which resemble those of *glaucescens*. There is a further approach to *glaucescens* in the unusually deep shade of the mantle and the bluish cast of many of the light areas on the primaries, but the mantle is still much lighter than in any specimen of *glaucescens* which I have seen.

In many respects *L. kumlieni* bears a curiously close resemblance to *L. leucopterus*. It is of about the same size and proportions, and the shape of the bill is similar, while several of the specimens before me are positively identical in general coloring. The only tangible point of difference seems to be that of the peculiar wing-markings of *kumlieni*. This, of course, is conclusive, but it is a matter of opinion whether it indicates a stronger affinity with *glaucescens*. Welch's bird certainly approaches *glaucescens*, and a large series may establish a complete intergradation; but, on the other hand, my light extreme (the type) suggests a similar transition into *leucopterus*. Were it not for obvious considerations I should suspect that the bird might be a hybrid between *glaucescens* and *leucopterus*. This, however, is highly improbable, and the most rational conclusion seems to be that it is a distinct species, intermediate between *leucopterus* and *glaucescens*, but on the whole perhaps more nearly allied to the latter, to which it bears about the same relation that *leucopterus* does to *glaucus*. All four species are evidently very closely related and form a group of high northern distribution. The range of *kumlieni* can be only conjectured at present, but the evidence indicates that it is probably confined to the eastern, and perhaps also northern, shores of the continent, where it replaces true *glaucescens*, which must be once more restricted to Pacific waters. Now that three examples are known to have been taken near the eastern corner of New England, it should be carefully sought all along our seaboard, for it doubtless occurs there with some regularity in winter, at least during severe seasons.