

HABITS OF THE BLACK BRANT IN THE VICINITY
OF ST. MICHAELS, ALASKA.

BY E. W. NELSON.

The long reign of ice and snow begins to yield to the mild influence of the rapidly lengthening days; the middle of May is reached, and the midnight sky over the northern horizon blushes with delicate rose tints, changing to purple toward the zenith. Fleecy clouds passing slowly across the horizon seem to quiver and glow with lovely hues only to fade to dull leaden again as they glide from the reach of fair Aurora. The land, so lately snow-bound, becomes dotted with pools of water and the constantly narrowing borders of the snow soon make room for the Waterfowl which, with eager accord, begin to arrive in abundance, some upon lagging wings, as if from far away, others making the air resound with joyous notes as they recognize some familiar pond where, for successive seasons, they have reared their young in safety, or, perhaps, a favorite feeding ground. At this time the White-fronted and Hutchins's Geese take precedence in numbers though, to be sure, they have been preceded for two weeks by the hardy Pintail Duck, the Common Swan and, lastly, that ornithological harlequin, the Sandhill Crane, whose loud rolling note is heard here and there as it stalks gravely along, dining upon the last year's berries of *Empetrum nigrum*; when, meeting a rival, or perchance one of the fair sex, he proceeds to execute a burlesque minuet.

A few days later, upon the mirror-like bosoms of myriads of tiny lakelets, the graceful Northern Phalaropes flit here and there or swim about in pretty companies. At length, about the 20th of May, the first Barn Swallow arrives and then we begin to look for the Black Brant, the "*Nimkée*," as it is called by the Russians, the "*Lük-lüg'-ü-nük*" of the Norton Sound Eskimo. Ere long the *avant-courier* is seen in the form of a small flock of ten or fifteen individuals which skim along close to the ice heading directly across Norton Sound to the vicinity of Cape Norne, whence their route leads along the low coast to Port Clarence where, I am told by the natives, some stop to breed; but the majority press on and seek the ice bordered northern shore

of Alaska and even beyond to unknown regions far to the north. Of this I am assured by Captain E. E. Smith, who tells me that while whaling in the autumn, to the eastward of Wrangel Land, in 70° N. latitude, he has seen flocks of these Geese coming from the north and steering straight for the coast of Alaska several hundred miles to the southward. The presence of this and other species of birds in that part of the Arctic Ocean argues favorably for the presence of a body of land to the northward of Alaska, but whether it is an eastern continuation of Wrangel Land or not is, of course, uncertain. However, let us return to a safer field. The following notes were mainly taken during the spring of 1880, for although I had seen the Brant plentiful the two preceding years, their extraordinary abundance the past spring was surprising, not only to the few white men here but to the natives as well.

The 22d of May a native came in bringing a lot of Geese and reporting plenty of Black Brant up the "Canal." For the benefit of the unfortunate few who have not been at St. Michaels I may explain that the "Canal" is a narrow and shallow tidal channel which separates St. Michael's Island from the main land and is bordered on either side by a stretch of low, flat land abundantly dotted with brackish ponds and intersected by numerous small tide creeks. As would be surmised, this forms a favorite haunt for various kinds of waterfowl.

Preparing the tent and other paraphernalia two of us, accompanied by a couple of natives, started out the next morning with a sled and team of five large dogs, driven tandem, just as the sun gilded the distant hill-tops and gave a still deeper tint to the purple haze enveloping their bases. The sharp, frosty air and the pleasurable excitement of the prospective hunt, after months of inactivity, causes an unusual elation of spirits and with merry jests we speed along until, in a short time, we approach a low, mound-like knoll rising in the midst of innumerable lakelets. A strange humming, for which we were at first unable to account, now becomes more distinct and we perceive its origin in the united notes of scores of flocks of Brant which are dispersed here and there over the half bare ground. Some sit along the edges of the snow banks or upon the ground, still sleeping, while others walk carelessly about or plume themselves in preparation for the work before them. Their low, harsh, guttural *gr-r-r-r*,

gr-r-r-r rises in a faint monotonous matinal whose tone a week later may waken the weird silence in unknown lands about the Pole.

Reaching the knoll before mentioned, we pitch our tent and after tying the dogs to keep them within bounds we separate to take positions for the morning flight. Each of the party is soon occupying as little space as possible behind some insignificant knoll or tuft of grass that now and then breaks the monotonous level. The sun rises slowly higher and higher, until, at length, the long narrow bands of fog hovering over the bare ground are routed. Now we have not long to wait, for, as usual at this season, the lakes, which are frozen over nightly, open under the rays of the sun between seven and nine in the morning and start the waterfowl upon their way. The notes which, until now, have been uttered in a low conversational tone, are raised and heard more distinctly and have a harsher intonation. The chorus swells and dies away like the sound of an aolian harp of one or two heavy bass strings and, as we lie close to the ground, the wind whispers among the dead plants in a low undertone as an accompaniment; but, while we lay dreaming, the sun has done its work; the lakes have opened, and, suddenly, a harsh *gr-r-r-r*, *gr-r-r-r*, *gr-r-r-r* causes us to spring up, but too late, for, gliding away to the northward, the first flock goes unscathed. After a few energetic remarks upon Geese in general and this flock in particular we resume our position but keep on the alert to do honor to the next party.

Soon, skimming along the horizon, flock after flock is seen as they rise and hurry by on either side. Fortune now favors us and a large flock makes directly for the ambush, their complicated and graceful evolutions leading us to almost forget why we are lying here upon our face in the bog with our teeth rattling a devil's tattoo in the raw wind. On they come, only a few feet above the ground, until, when twenty or thirty yards away, we suddenly rise upon one knee and strike terror into the hearts of the unsuspecting victims. In place of the admirable order before observed all is confusion and, seemingly in hope of mutual protection, the frightened birds crowd into a mass over the centre of the flock, uttering, the while, their ordinary note raised in alarm to a higher key. This is the sportman's time and a double discharge as they are nearly overhead will often bring down from

four to ten birds. Scarcely have the reports died away when they once more glide along close to the ground; the alarm is forgotten; order is again restored, and the usual note is heard as they swiftly disappear in the distance. Thus they continue flying until one or two o'clock in the afternoon when, after a pause of three or four hours, they begin again and continue until after sundown.

The migration of this species in spring generally continues for a week to ten days from its first arrival, but during the spring of 1880 they were seen from the 20th of May until June 8th. Twice during the breeding season, in the spring of 1879, I saw single birds which each time circled mutely about overhead with all the appearance of a bird whose nest was not far away, but, if such was the case, I did not succeed in finding it. My native workman told me, at the time, that a few instances had occurred of single nests being found here. The mouth of the Yukon probably forms the extreme southern limit of this bird's occurrence in the breeding season.

With the exception of the Painted Goose, the Black Brant is the fattest of the spring Geese, and the natives smack their lips in anticipation when the first arrivals are announced. They also stand high in favor with the Russian residents along the coast who refer with pride to some big day they have had shooting "Nim-kee," and wind up with the remark that they are "good eating, too." For my own part I admit a decided partiality for the Black Brant in spring; first, on account of its fatness and the consequent important addition it makes to our table, replacing for a time the other species of lean and sinewy Geese and Ducks; and, secondly, for the sport it affords, occurring, as it does, in far greater numbers than all the other species together. But, to be properly enjoyed upon the table, they must be eaten within three or four days of being killed, as after that time the fat begins to become fluid about the joints and is invested with a daily increasing flavor which by no means adds to the quality of the roast.

The flight of this species is peculiar among North American Geese and bears a close resemblance to that of the Eider and other species of heavy-bodied short-winged Sea Ducks. It has a parallel in the flight of the Emperor Goose except that the latter is a far heavier bird and, in consequence, the wing strokes are less rapid. In *B. nigricans* the strokes are short, energetic,

and repeated with great rapidity, carrying the bird with a velocity far greater than that attained by any other Goose with which I am acquainted, though probably its eastern prototype equals it in this respect.

But this is not the point upon which the mind rests when the birds are in view, for then the eye is held in involuntary admiration of the varied and graceful evolutions of the flocks which have a protean ability to change their form without ever breaking the array or causing confusion. They are very gregarious and two flocks almost invariably coalesce when they draw near each other. This frequently occurs until, as I have seen, it results in a single flock numbering between four hundred and five hundred birds. The usual size is considerably less, generally comprising from twenty to fifty or more, and it is rare to see less than ten or fifteen in a party. At times four or five individuals become detached and until they can unite with a stronger party they fly irregularly about as though bewildered, continually uttering their harsh notes, and hurry eagerly away to join the first flock that comes in view. The order of flight is invariably a single rank, the birds moving side by side in a line at right angles to their course so that the entire strength of a flock is to be seen at a glance along its front, which, at times, covers several hundred yards. There is barely room enough between the individuals to allow a free wing-stroke. Thus ranged the flock seems governed by a single impulse, which sends it gliding along parallel and close to the ground, then, apparently without reason, careering thirty or forty yards overhead only to descend to its former level as suddenly as it was left; now it sways to one side and then to the other, while at short intervals swift undulations seem to run from one end of the line to the other. These movements are repeatedly taking place; they are extremely interesting to observe but difficult, I fear, to convey an adequate idea of in words.

The entire flock, consisting of perhaps over a hundred birds arranged in single line, is hurrying on, straight as an arrow, toward its destination when, without warning, it suddenly makes a wide curving detour of several hundred yards, then resumes its original course only to frequently repeat the manœuvre, but always with such unison that the closest scrutiny fails to reveal the least break or irregularity in the line; nor does the front of the flock swerve, excepting an occasional slight obliquity which is corrected in a few seconds.

In addition to this horizontal movement is a still more interesting vertical one which often occurs at the same time as the other but generally by itself. A bird at either end of the flock rises or descends a few inches or several feet, as the case may be, and the movement is instantly followed in succession by every one of its companions till the extreme bird is reached and the entire flock is on the new level; or, it may be that a bird near the middle of the line changes its position when the motion extends in two directions at once. These latter changes are made so regularly and with such rapidity that the distance between the birds does not appear altered in the least, while a motion exactly like a graceful undulation runs the length of the flock lifting or depressing it to the level of the originator of the movement. These changes present to one's eye as the flocks approach, keeping close to the ground, the appearance of a series of regular and swift waving-motions such as pass along a pennant in a slight breeze.

The Black Brant never wings its way far up in the sky, as many other Geese have the habit of doing, but keeps, as a rule, between ten and thirty yards above the ground, with more flocks below these limits than above them.

Another idiosyncrasy of this bird is its marked distaste for passing over low ranges of hills which may cross its path. A striking case of this is shown here where a low spur runs out from the distant hills in the form of a grass-covered ridge projecting several miles into the flat marshy land. This ridge is from fifty to two hundred feet above the surrounding country and bars the course of the Black Brant. So slight an obstacle as this is enough to cause at least ninety-five per cent of the flocks to turn abruptly from their path and pass along its base to round the end several miles beyond, and then continue their passage. In consequence of this habit it has been a regular practice for years for the hunters to occupy positions along the front of this ridge and deal destruction to the Brant, which still hold as pertinaciously as ever to their right of way.

The coast, from St. Michaels northward to about midway between Capes Darby and Norne, is hilly, and, in consequence, the Brant make straight across Norton Sound from this place to the vicinity of Cape Norne whence they follow the low coast-line to the north. As the Brant come from the south they make a "short cut" across the low country from the mouth of the Kus-

koquine River to the Yukon delta, and in descending the various mouths of the Yukon they invariably keep in the centre of the channel and fly low, generally within four or five yards of the ice which covers the river at the time. I can account for this dislike for flying over slight obstacles only by the supposition that by frequenting the sea coast and salt-marshes the birds have acquired a taste for keeping low even though at the expense of travelling longer distances. The same habit is shown in many Sea Ducks which have the custom of coasting low points rather than cross them.

Though I have made inquiry among the natives and a number of white men who have been as far along the coast as Point Barrow I have been unable to definitely locate the point of their greatest abundance in summer. In autumn very few Brant are seen here during their return to the south. Dall records a specimen killed at Unalaklik the 28th of September, 1867—the latest date I have learned of its presence in Norton Sound in autumn. They generally pass south in September, between the 15th and the above date.

The fact of the much greater abundance of Brant here in spring is easily accounted for when we consider that at this season the country is but just becoming free of snow and, consequently, the migrants must advance slowly and cautiously as the country becomes habitable for them: in fall, on the contrary, the Brant, like the other waterfowl, remain on their breeding grounds until the sharp frosts in September bid them depart, when they pass down the coast, through Behring's Straits, and then straight across the sea, past the eastern Aleutian Islands into the Pacific Ocean, thus leaving the shores of Norton Sound out of their road, or only to be visited by a few stragglers. Through Dall* we learn that the Black Brant passes Fort Yukon in spring, though it is not seen there in fall. He also records it from the vicinity of Nulato in spring, probably as stragglers from either up or down the Yukon.

In the above-cited paper it is also stated that "this Goose is always lean, tough, and of disagreeable flavor," and that "it is also very shy," all of which requires confirmation, since my own experience, extending over three years, during each spring of which I have had abundant opportunity to try them in the field

* Dall and Bannister, Trans. Chicago Acad. Sci., I, 1869, p. 295.

and on the table, has convinced me of exactly the contrary. Previously in this paper I have noted the condition in which the Brant arrives and the estimation in which it is held here. As to its being shy, I have not seen a Goose or Duck during the migrations here which has such a contempt for the "human form divine." Several times I have exhausted my stock of cartridges during a morning's flight and on starting for camp to replenish have been invariably tantalized by numerous flocks passing on each side within range and in several cases within twenty yards. Of course not every flock will do this but at least half that came my way seemed supremely indifferent to my presence; and, in some instances, shouting and waving my hat caused only a slight deflection of their course. No doubt some of my readers will recall, with a smile, instances when they, too, have been caught without ammunition by wild fowl, and with what disregard they were afterwards treated, but this is not a similar case, since I have also walked along the same path at other times with plenty of cartridges which resulted in considerable damage to the Geese.

Mr. Bannister records the arrival of this species at St. Michaels the 12th of May (l. c.). It may occur thus early in exceptionally early seasons but the average dates are from the 18th to 22d of May for its arrival and about the first of June for its departure to the north.

FIELD NOTES ON THE BIRDS OF SAN JUAN
COUNTY, COLORADO.

BY FRANK M. DREW.

[Concluded from page 91.]

44. *Spizella pallida*, Bp. CLAY-COLORED SPARROW.—Think I saw one in September.

45. *Zonotrichia leucophrys*, Sw. WHITE-CROWNED SPARROW.—Common; breeds in bushes. In June one may see the males near their homes, perched on rock, bush, or even on the ground, chanting the homely song until you fairly tire of it. I have never heard here their beautiful spring