

tribes of birds had not yet distributed themselves in these northern Provinces. Since their distribution in these parts the Northumberland Straits have proved a barrier to their movements which they have not yet learned to overcome.

In studying the botany of the Maritime Provinces we find that the same thing exists in regard to the plants of Prince Edward Island. Many plants of more southern habit, common to the Provinces of the mainland, have been excluded from the Island by its early separation from the continent.

In the birds the fact shows the exceeding tardiness with which they adopt new lines of migration, and, consequently, the tenacity with which they adhere to established habits in their migrations and distribution.

It also reveals something of the great northward movement of the feathered tribes which must have followed the recession of the cold of the Glacial Period, pointing out those which were the last to arrive within the limits of these Provinces.

NOTES ON MANITOBAN BIRDS.

BY ERNEST E. T. SETON.

THE Peregrine Falcon (*Falco communis*) is a regular summer resident of this country, although, for some reason as yet unknown, it is not often seen on the Big Plain until August. I have had a number of good opportunities of studying the bird. It has several times visited the poultry-yard. On four occasions I have known the bold pirate to continue dashing round the barns whilst shot after shot was fired at him; on one of these he flew off after the third shot, probably hurt. On another occasion he was killed at the third shot, after killing his victim. On a third the fourth shot drove him off, and on yet another the fifth shot brought the bold bird to the ground. This last was a young male; his injuries were very slight, and so he was kept alive and sent to me. I kept him three weeks in captivity, and had a good opportunity of making notes. The vocal sounds uttered by this bird were three in number; a hissing menace, like that

of the Owls, an exceedingly loud and piercing scream of anger, and a reiterated shrieking, almost exactly like that of the Kestrel, but stronger and in a deeper key. The regal beauty of this bird, his proud, conscious look of strength and power, the snap and fire of his every movement, can only be appreciated by those who have had an opportunity of judging for themselves.

Baird's Bunting (*Passerculus bairdi*) is a species of considerable interest. It is exceedingly abundant in suitable localities of this country. I give the following in full from my unpublished notes on the Birds of Manitoba.

I found this species throughout Western Manitoba wherever the surroundings were congenial. On the Big Plain it is fairly common, but on the prairies of the upper Assiniboine it is exceedingly abundant. I traversed that country in June, 1884. At that time all the birds were in full song. The scrubby prairies, from the Finger Board to Shoal Lake, were vocal with the songs of Shattuck Buntings and Savanna Sparrows; where the prairies widened and became more clear, the loud Meadow Lark joined in, or when the trail dipped into some hollow where the red willow was thickly growing, the husky-voiced Leconte's Sparrow added his weak song to the tumult. But in the low flats by Shoal Lake, where the ground was hard-baked and sparkling with alkali, where the grass was scanty and wiry, a new voice lent its aid to the choir, for here is the favorite haunt of Baird's Bunting. Whenever the trail crossed one of these dry alkali flats, the notes of this bird were sure to be heard on all sides. The song may be rendered *trick-e-trick-e-trik-ecce-chiky-le-roit*, with a peculiar tinkling utterance that at once distinguishes it from the song of the Savanna Sparrow. Another type of song with this species is like *trick-e-trick-e-trike-e-trrrrrrrrrr*.

In the Shell River country the dry alkali bottoms were more frequent, and the Bunting became numerous in proportion. I found its nest also, but will not describe it, as I was unable to substantiate the fact by shooting the bird.

The general habits of this bird are much like those of the Savanna Sparrow. When singing it is usually perched in some tuft of grass, each foot grasping a number of stalks to furnish support. When disturbed, it flits low over the flat and drops into the grass.

A number of the specimens taken were rather larger than the measurements commonly given. The gizzards generally contained hay seeds and small insects, but a large, green caterpillar was found in one of them.

The latest record I have is September 23. Shortly after this they must have flown southward.

Another interesting resident of the northern prairies is the Missouri Skylark (*Neocorys spraguei*). It is one of the commonest of prairie birds in Western Manitoba; its loud ventriloquial voice is heard from the clouds on all hands when it is in full song. It commonly arrives on the Big Plain about the 3d of May, and by the 6th or 7th is rested and singing. In order to give a better idea of the numbers of this species, I counted those that I passed beneath in a three-mile walk across the prairie on the 10th of May; altogether there were twelve, trilling their silvery notes in the bosom of the clouds.

This song was for long a riddle past my solving. I felt sure of its being the utterance of some bird on the prairie, but where I could not tell nor trace; wherever I went, it seemed to be just a little further ahead, or to one side or another, or suddenly behind. Throughout the whole season of 1882 I was thus duped, and it was by chance that at last I found the singer to be away up in the sky, but so high that on a bright day it is impossible to follow with the eye the tiny speck whose music is shaking the air for thousands of feet around. The song is sweet and far-reaching, and Dr. Coues gives a most enthusiastic description of its moving power and melody, yet, though I am readily influenced by bird music, I never found this singer impress me with the love and reverence invariably inspired by such as the Veery utters, a bird whose notes resemble these as nearly as possible.

When the Skylark feels the impulse to sing, he rises from the bare prairie ridge with a peculiar bounding flight, like that of the Pipit; up, in silence, higher and higher he goes, up, up, one hundred, two hundred, three hundred, five hundred feet; then, feeling his spirits correspondingly elevated, he spreads his wings and tail and utters his loud song, like *tsing-tsing*, *tsingle-ingle ingleingleing*, the single vibratory note uttered faster and faster till the last ones are all fused. While this is being sung the bird is floating downwards, and as soon as it

is finished he proceeds, by the bounding-flight, to regain his elevation and once more pour out his silvery strains. On the 14th of May I noted one of these birds singing with great devotion. He had trilled his refrain at least twenty times, when it occurred to me to time and count his songs. The whole of each trilling occupied fifteen seconds, and after I began to count he repeated it from beginning to end eighty-two times; just as he should have entered on the eighty-third, his wings closed, his tail went up, and down he fell headlong, but my eyes were blinded with the brightness, and my neck refused to take part in further proceedings, so that I was not able to mark the bird for closer examination. This singer had serenaded me for about an hour, and I do not think he ranked above his fellows in staying power. Several times after a Skylark had sung and returned to earth, with the headlong descent described, I have deliberately flushed him, and at once he rises without further preamble, soberly remounts his imaginary five hundred-foot platform, and again sings his trilling slurs from beginning to end. Thus on one occasion I called the same bird three times before the curtain, but on the fourth encore he would not respond; each time that he was disturbed, he would fly off some two hundred yards, and again settle on the ground. Once, only, have I observed this species singing his full song on the ground.

The other habits and common notes of this species have a considerable resemblance to those of the Titlark. It leaves the Big Plain about the end of August.

The finding of a new form of the Ruffed Grouse within the limits of territory tolerably explored is not an occurrence that any student would have expected. Yet in the woods of Manitoba is a well-marked variety, which is known there as the Red or Copper-ruffed Partridge. In general appearance this bird differs but little from the well known *Bonasa umbellus umbelloides*, but it is distinguished by being more decidedly marked,—thus the bars on the belly are complete and nearly black,—and by having copper-colored touches on the back, the subterminal tail-band and the *ruff* a rich, iridescent, *coppery red*.

Mr. Ridgway, commenting on a specimen sent him, says: "This grouse is the handsomest bird of the species I have ever seen: so far as general plumage is concerned it is decidedly referable to *B. u. umbelloides*. . . . It is quite peculiar enough in

plumage to represent a distinct local race, provided the differences are reasonably constant."

And later, the same authority writes, "I do not think that a new race can be characterized, the 'copper-ruffed' birds forming a sort of connecting link between *umbellus* and *umbelloides*."

To this I reply, first, that we have in Manitoba a *Bonasa* which, in its entirely rufous tail and general color, is very closely allied to *B. umbellus*, if, indeed, it is not absolutely that form. Second, we have the well-known *umbelloides*. Third, there are all grades between these two. Fourth, the form with the copper ruff. And all of these are found in the same woods, sometimes in the same pack. The relative proportion of each is, perhaps: *umbellus* 10 per cent; *umbelloides*, 20 per cent; grades between these, 60 per cent; copper-ruffs, 10 per cent. So far I have not seen any indications of intergradation in color between the last-named and the other forms.

Mr. C. W. Nash, an accomplished naturalist and sportsman, now residing at Portage la Prairie, Manitoba, writing me on the subject, strongly objects to the form being considered only a chance variation, as it is the most stable of those found in the country. He asserts that 10 per cent is too small a proportion, and adds that the most brilliant ruffs he ever saw belonged to a bird which had the purest gray tail of any he had shot, and which was also the largest bird he killed last season.

Dr. Brodie informs me that many years ago this variety was of frequent occurrence in the country north of Toronto. The settlers recognized it as, in a measure, distinct from the common Partridge, and superior to it in size and beauty.

If this form can be shown to be geographical I shall claim for it the rank of a variety, but with my present information can but think with Mr. Ridgway that not only this, but perhaps all of our Canadian *Bonasa*, are more or less referable to the form *umbelloides*. The brilliant coloration of the Grouse may prove analogous to the remarkable variations exhibited by several of our Hawks and Owls.