

or became incapacitated for normal existence. For instance the finding of the remains of Horned Puffins on the sea beach of San Mateo County, as has recently been reported, should not at all be construed as constituting valid proof of the normal occurrence of this species off the Californian coast. The floating bodies may have been carried on the southward-moving off-shore "Japan current" from off the coast of Oregon or even from Washington or Alaska. An element of chance clearly enters here which renders such "records" inconclusive. They certainly should not be considered as constituting the definite addition of a species to the existing native fauna of California, any more than with species imported by man.

It may be properly pointed out further that because of their slow breeding rate, in other words their lesser powers of recuperation when their numbers have been unusually reduced, any new danger is much more likely to lead to serious consequences with sea birds than with land birds. Such man-caused factors as disturbance of nesting grounds, and oil on the water, might quickly lead to extermination of the pelagic birds affected, because wholly new in the phylogenetic history of the species. Rate of reproduction is a very conservative character of species, not such as can be changed abruptly, as suddenly arising demands might make necessary to the continuance of the race.

*California Museum of Vertebrate Zoology, Berkeley, March 15, 1920.*

## A RETURN TO THE DAKOTA LAKE REGION

By FLORENCE MERRIAM BAILEY

LAST DAYS IN NORTH DAKOTA

*(Concluded from page 72)*

THE last of August, having visited four lakes, I returned to the homelike farmhouse on North Sweetwater where I had explored sloughs and listened to the joyful songs of the Sora in June; and with the exception of the automobile trip to Island Lake, stayed there until the first Geese came from the north the last of September. During the five weeks of my absence, the nesting season had been completed except for birds that raise several broods, such as my small friend the House Wren down at Stony Point, who met me with her habitual vigorous scolding explained by a late brood of fuzzy-headed soft-gaped and short-tailed youngsters. As late as the first of September, the family were still met with, and talked volubly as I passed. Another mother with nearly grown young—a Holboell Grebe—was seen down by the lake shore the last of August, and I was much pleased to add her to my North Sweetwater list.

In June a few pairs of Bobolinks had been scattered over my beat, the black and white males singing from the fence posts and on the wing; but in August the twang of their call note, heard occasionally from a telephone wire, made me look for the yellowish breast of the sparrowy looking bird overhead. Along the margin of the lake, a Red-tailed Hawk, perhaps having exhausted

other pastures, was seen soaring with red fan outspread, or going along with its heavy steady flight so different from the light tilting beat of the Marsh Hawk, its squealing cry being given perhaps to start the small animals running out from cover. A Nighthawk, wandering after the nesting season, was flushed from a square of plowed ground, to which it soon returned as if realizing how well it was hidden there, reminding me of one seen on Devil's Lake which half decoyed as she rose from the two dull eggs that lay casually on the ground, her tail hanging straight and limp until she was clear of us.

Three Willets, perhaps part of the family met with previously on the road, spent some of their time for a week or more on our pasture slough. As they walked about over the hummocky, cattle-tracked ground on the edge of the water, their necks moved forward and back, and they fed rapidly, picking first from one side and then from the other, in their preoccupation often plumping down with one leg into a deep foot print, and when necessary wading up to their knees as freely as Crows walk on bare ground. In resting they would ordinarily stand humped up. Over their heads Barn Swallows sometimes flew about, also hunting from the slough. The Willets in going from one end of the long pasture slough to the other, perhaps hurried by my presence, would make short flights, showing their handsome black and white wing pattern and white rump. When I was absorbedly watching them one day, a small animal almost ran against my foot in the grass, and on looking down I caught sight of a golden brown weasel fleeing across the open.

Very few waders were seen during the migration, but one pretty flock of Snipe of various sizes was discovered in the corner of a neighbor's pasture, picking along the soft edge of a shallow rain pool, chattering and playing in delightfully animated style. Two large Yellow-legs waded about up to their bodies, and two of the smallest of the Sandpipers, probably the Least, with strong dark markings on the back, a line down the wing, and dark middle tail feathers, lifted their wings high at each other in pretty play, and then ran chattering about their business, while another small wader, presumably the Semipalmated Plover, with white forehead and dark collar, stood soberly looking on at the busy scene.

A week later, August 28, just before dark I heard the voices of shore-birds outside, and stepping out on the piazza discovered a large compact flock circling around again and again, low over the ground, talking volubly in argumentative tones, as if the next step were in dispute. Then suddenly as if a conclusion had been reached, with beautiful unanimity they rose, and showing points of light swung off toward the lake. Had they come at last to my door? I was greatly excited, having almost entirely missed their migration. But though I hurried down to the shore the next morning, they were not to be found, and had doubtless gone on their way to the south.

Flocks of Blackbirds were moving about here as at East Sweetwater, and a mixed flock of Yellow-heads and Red-wings, old and young, sitting on a fence, instead of all being headed one way, showed a confused line of heads and tails that would have seemed scandalously individualistic to the White Pelicans! A small flock of Brewer Blackbirds swung in near Stony Point at sunset on the first of September, flying down to the foot of the canes for a last drink, and then swinging back to the trees as if to roost, though many of the Blackbirds preferred the canes for the purpose. At Stony Point the night before the Blackbirds came, the rattle of a Kingfisher made me look up

in surprise to find one flying into a tree, as if stopping for the night on his way south. At this time Barn Swallows were also flying about the canes—now standing six feet high, topped with a soft autumnal pinkish brown brush—weaving in and around them as if prospecting for a roost, gathering about a Hawk that flew out over the edge of the lake, sweeping out over the surface of the water dipping down as if for insects; then sweeping back over the pasture with its soft gray aromatic sagebrush and yellow-buttoned tar weed, and its bright stretches of goldenrod illumined by the low western sun, their brown underparts glowing as they caught the light. Back and forth they went, down over the pasture, up across the sky, talking cheerily as they trooped by. A few other migrants, notably a Robin, a White-crowned Sparrow, and a flock each of Juncos and Yellow-rumped Warblers were seen up at the Grandfather's poplar grove, about the middle of September.

But it was not alone the birds which proclaimed that autumn was coming. The harvest was here. Traction engines and the long trains of their threshing outfits suggesting short railroad trains invaded the grain fields, to be cut at a rate of two hundred dollars a day, the automobile of "the boss" standing by ready for quick work in any emergency, be it to replace broken machinery or to exchange "fired" members of the threshing crew. Around the circle of the horizon, lines of smoke recorded the progress of the harvesting; while at night the fires of burning straw stacks seen north, south, east, and west gave new emphasis to the level horizon of the prairie. Nearer at hand, the smell of the burning straw pleased the nostrils, and the flaming and red-smoldering forms of the stacks delighted the eyes; though it was difficult for me to be reconciled to the enormous economic waste of their conflagration. At times the red light of a burning stack would be reflected in the lake, and sometimes one would give a supplementary touch of color to the red afterglow of sunset.

When the threshing outfit arrived at the Grandfather's farm, as no cook car was included, we all went up to help with the work, the son of three weeks riding in a clothes basket in the front of the wagon while dishes and supplies filled the back. When three strenuous days were over, our turn coming next, the grandparents likewise helped us through the ordeal; the crew, including several Austrians—one who could not speak English—a negro, and an I. W. W. worker, all being served unstintingly on the best the house and country afforded.

Then came the trip to Island Lake, on the return from which, in the second week of September, the appearance of the country had changed. Harvesting was over, the grain being stored partly in turret-like galvanized iron granaries in the fields, and most of the stacks having been burned. The sloughs that had dried out sufficiently had now been mowed for hay. Phalarope Slough, in which I had waded over the tops of my rubber boots, laboriously shoving through high slough grass, was now a flat, pale green, lake bottom, where horses grazed on the new tender growth; and here and there large hay stacks, put up by a stacker, their crowns held firm by rows of binder twine weighted down with stones, bore surprising testimony to the richness of the slough grass cover.

The small sloughs including those where the Shovellers had done head exercises and the Night Herons had watched for frogs, had now dried up, pink-flowered mint, mossy tussocks, and spear-pointed sagittaria leaves look-

ing decidedly stranded in the dry pasture with goldenrod, snowberry, tarweed, and sagebrush. The water had partly dried up in the large pasture slough, but Coot calls and Mallard quacks still came from it. Even the Big Slough where the Coots' nests had been found was partially mowed, although the water was still too deep for approach a long distance out from the black streak.

Harvesting over, the fall plowing and disking were under way, and flocks of Franklin Gulls were keeping watch of the work ready to take advantage of the soft open ground. A flock of five or six hundred followed the farmer and his man when disking with eight horses, but as he said, "they didn't stay long," the shallow cutting disk not exposing worms as the plow did.

The open season being well under way, automobiles full of hunters crossed the pastures to the pass below us, and nervous flocks of Ducks shifted up the lake out of reach. Mallards were flushed from the Pasture Slough and I was told by my friend, the farmer's wife, that late in the fall they are seen out in the stubble fields feeding on the barley left from the threshing. Evenings, in the golden afterglow, Ducks passed over toward the lake, their flocks suggesting the sound of wind in frosted corn.

As the September days passed, I began to think of the Geese coming from the north. Several Snow Geese, doubtless wounded on their northward flight in the spring, had been seen during the summer by a neighbor who thought they were nesting; and one day as I came in, the farmer asked if I had seen a large white bird in our next neighbor's pasture. "I bet it's a Pelican!" he exclaimed. Going out with me, he had to fairly point out the bird, for it was so conspicuous that I had passed it over as a white stone in the grass—which gives a side light on protective coloration! Creeping cautiously down to field-glass distance, I discovered to my delight that it was a pure white Goose with black wing tips and a brightly colored bill, bending over, feeding from the slough. But before I could get closer, feeling itself observed, the shy bird flew away. How soon would its brothers come from the north, and the reunited bands pass on to the south?

The year previous the Geese had come the first week in October, the farmer's wife told me, and she gave me a graphic account of their arrival. She had gone out to the windmill about five o'clock in the afternoon—the fifth of October—and looking north discovered them coming toward the lake. They made a solid phalanx a mile and a half wide, and coming on flew low over the windmill and the barn, passing on to the lake. With keen enjoyment of the memory of the wonderful sight she exclaimed—"I could see them coming from the east as far as I could see, and could see them going into the west till they were as small as Swallows!" They went out onto the lake for the night and with the sun on the water could not be seen.

During their stay in the neighborhood, they would "go out to feed about sun up and return from ten to twelve; then go out again from two to four, and return about sundown. One day about noon," my friend continued, "a very quiet day, bright and sunshiny, they drifted toward the shore of the lake in a big white mass and after they had gotten on the shore worked over the bank of the lake down into a slough, where they stayed and fed on the rank green grass." Their mass, she said, must have been four or five rods wide and a quarter of a mile long. "Oh that was a pretty sight, though," she ejaculated. The Geese stayed quietly feeding till about two o'clock when

some hunters came and drove them off, when they flew out east to feed. They would go miles to feed, she said, adding that "they like burnt barley fields the best, for in them the grain is in plain sight."

The Canada Geese come earlier than the Snow Geese and this year on the twenty-first of September, at Crary, twenty miles from us, three flocks were seen, fifteen in a flock. Three days later, as we were out by the windmill we heard a faint honking and I was delighted to discover two small flocks flying over toward the lake, seven in the first flock, eleven flying in single file in the second.

By this time we were having the clear bracing days of a northern autumn. In the Big Slough the grass around the black streak when lit by the sun made a vivid yellow streak, and along the lake border the trees were also yellowing. The stacks of slough hay were being fenced to keep the cattle from them during the winter, and fields of grain too poor for threshing were being burned. The burning was generally done by lighting kerosene-soaked rags tied on a long wire, the farmer dragging it along the edge of the field to be cleared, taking care not to get burned when the wind caught the flames. While all this was going on, eight horse gang plows were turning great squares of stubble field to black squares of rich Dakota soil.

When the Meadowlarks were heard singing with fervor the fifteenth of September, I attributed the surprising phenomenon to the fact that it was a warm day after protracted cold; but on the twenty-third, when with white frost on the ground and fences—cat tracks showing the frost on the gate post—both Meadowlark and Song Sparrow sang joyously, I put them down for good hardy North Dakota birds. On such stirring days who would not want to shout and sing, to rejoice in being abroad in the great out of doors? Glorious windy days there were when the afternoon sun sent long flashlight streaks across the pale stubble fields and straw stacks, as the wind whistled and cloud piles shifted across the blue sky.

But the autumnal nights were the most resplendent of all. As early as the last of August the heavens were growing prophetic with northern lights. On several brilliant starry nights I had noticed a wide band of light across the northern sky, from which light streaked up toward the zenith. Then came the night of the transcendent auroral display widely observed in the north. At its height, the north side of the heavens from horizon to domed zenith was one vast illumination with upward streaking and pulsations like the subdued flashing of electric light. The days following these electrical displays, the cool air seemed singularly pure and clear, exquisite small clouds standing still low in the blue heavens, so perfect they looked as if a child could pluck them from the sky.

Rich sunsets were followed by glorious starry nights when, with heavy wraps we would go out under the sky to study the constellations, the low horizon giving a full calendar, from the Dipper low in the northwest to Scorpio low in the southwest; while Capella shone brilliant just above the northeastern horizon, Cygnus and Lyra overhead, the Square of Pegasus, Cepheus, Cassiopeia, and Andromeda in the northeast; Perseus, Triangula, and Aries near the northeastern horizon. In the silence of the night, how one marvels at the star-filled firmament! When the hours of night had turned to those of morning, Orion slumbered on the horizon. Then came the morn-

ing stars, looming large and resplendent, Venus with great shining face standing high over the prairie. And then, they in turn were followed by the rich red band that presaged the coming of the morning.

Days beginning with sunrises of orange and red, ended perhaps with a lake of gleaming silver, the sunset a serene green with only delicate touches of red, perhaps with an orange sky behind the straggling tree border of the lake, or with a flamboyant afterglow sending continental funnels of color high in the sky.

Whatever turn they took the days were days of glory, and although I had to leave for another time that most wonderful ornithological experience, the northern flight of waterfowl, my summer had already had full measure and I left with mental gallery crowded with bird pictures, with pulses quickened by the stirring northern days, with mind swept clear by prairie winds, and with spirit uplifted by memories of gorgeous sunrises and sunsets, of brilliant morning stars, of marvelous star-filled firmaments, and illuminated auroral skies.

*Washington, D. C., June 16, 1917.*

## FROM FIELD AND STUDY

**The Eastern Savannah Sparrow and the Aleutian Savannah Sparrow at Tacoma, Washington.**—The Savannah Sparrow group is represented at Tacoma during different times in the year by no less than four varieties, but it was not until the fall of 1919 that I was able to actually take specimens of the Aleutian Savannah Sparrow (*Passerculus sandwichensis sandwichensis*). The first, a male, and evidently a young of the year, was taken on October 12, while sitting on a fence in company with a large number of Savannah Sparrows. Its dark coloring, sluggish actions, and much larger size at once showed it to be different from its companions, with which the tidewater marsh was swarming. Upon returning to the same locality on October 30, I was successful in collecting another male of the same species, an adult this time, and saw what I am positive from their actions were two or three others. The difference in actions between this species and the rest of the group is so striking as to at once arouse my suspicion as to their being different. When I first saw this bird it flushed almost under my feet when I was stalking some ducks, instead of flying at from twenty to thirty yards as the other Savannahs all do. I at once lost all interest in the ducks and went in pursuit of my sparrow. After walking up and down where I had "marked" it, I saw it standing watching me some ten feet away, and it ran instead of flying. In fact I very nearly did not get this bird in my efforts to study its habits before collecting it.

On September 20, 1919, I collected on the same tide-flats an adult male Eastern Savannah Sparrow (*Passerculus sandwichensis savanna*), which was in the company of a large number of others that were apparently of the same kind. All three of the above mentioned specimens were kindly identified for me by Mr. Joseph Grinnell. Judging from specimens taken in past years I believe this form is an extremely abundant fall migrant, although I have never seen it in the spring migration.

It may be of interest to state that our breeding form in western Washington is the Brooks Savannah Sparrow (*Passerculus sandwichensis brooksi*), a very small, light-colored bird, barely five and a quarter inches long. They arrive from the south usually in the latter part of March, although a few are sometimes found much earlier, and they leave for the south again very early in September. The most northern record that I have for this form is a nest with six eggs in my collection taken, with the parent bird, on a