

mally marked (see fig. 75). This raised the question in my mind as to when and at what stage the pigment is deposited on the shell, and I would be pleased to be enlightened by some one more versed in the matter than myself.

The bird had deposited only three eggs in the nest during a period of five days, and either it was on the nest at the time taken, for the purpose of depositing this white egg, or else resting after having laid her fifth egg; in the latter case she had laid but one egg in three days.

The only other records I have of nesting dates of this species are those of Carter (deceased) of Breckenridge, Colorado, and are as follows: June 17, 6 eggs; June 27, 5 eggs; July 2, 6 eggs; July 6, 6 eggs.

Although more or less familiar with these birds for the past thirty years (though I never before searched for their nests), I never saw one run or move on ground faster than a turtle, or before heard of it.

I am convinced the finding of a nest, unless the bird is on it, would be pure accident. That if they build, or line, any systematic nest it is done as with many species of ducks, i. e., while they are laying their clutch and during the incubation of same.

The moulting of the females was much farther advanced than that of the males. The males always appeared more on the alert than the females (compare the photos). The moulting had made marked advancement between June 11 and 21.

Having always considered the ptarmigan the champion fool of all land birds, relying almost solely on its protective coloration and slow movements for safety, it maintained this reputation with me in all the preliminaries of this trip, but when it came to the finals in matters of nidification and the perpetuation of its species it created an admiration for its tact and ability in outwitting us in fine shape; but I am in hopes of getting the resultant grouch out of my system during the next nesting season.

Being taken seriously ill on Sunday, I had to be quickly removed to a lower altitude for treatment, and on instructions the boys broke camp and followed me the next day.

Denver, Colorado, October 12, 1915.

CHARACTERISTIC BIRDS OF THE DAKOTA PRAIRIES

II. ALONG THE LAKE BORDERS

By FLORENCE MERRIAM BAILEY

THE BIRDS of the prairie region include not only those of the open grassland, such as Prairie Chickens, Upland Plover, Short-eared Owls, and Bobolinks, but also those of the brush patches and timbered borders of the numerous prairie lakes, together with those that frequent the sloughs and marshes and the lakes themselves.

The Stump Lake wheat farm where I spent part of the summer was east of the hundredth meridian, but its proximity to the arid regions was attested by the alkaline water of the lake and lines of frothy suds along its shores, while partly buried but well preserved bones of buffalo that had come to water from the surrounding prairie were to be picked up along the beaches. In the first

excitement of hearing Western Meadow-larks and watching Sharp-tailed Grouse in the potato patch, and those arctic breeders, the White-winged Scoters out on the lake, I found myself hoping for old western friends and new and interesting strangers; and, slow to give full weight to the fact that we were east of the hundredth meridian, was loth to acknowledge that the four birds whose songs were most continually in our ears at the farmhouse were domestic eastern friends—the Baltimore Oriole, Rose-breasted Grosbeak, Warbling Vireo, and House Wren.

These, like all the other tree-nesting birds of the treeless prairie region, of necessity gathered in the hardwood lake borders, but some of the species would normally have nested not in thick woods but in isolated trees in the open. The song of the Baltimore Oriole like that of the Warbling Vireo came not from elms on a lawn but from the edge of the narrow strip of timber between the farmhouse and the lake, among whose trees were old nest holes of the Golden-eye. The Rose-breasted Grosbeak also sang from the oak woods of this compressed nesting area where House Wrens, Catbirds, Thrashers, Cuckoos, Wood Pewees, Mourning Doves, Bluejays, Crows, Nuthatches, Flickers, Downy Woodpeckers, Long-eared Owls, Swainson Hawks, and Ferruginous Rough-legs were congregated.

The owner of the woods took us down to see a Rough-leg's nest that he had been noticing for years in going for his cows. On the way we visited a Long-eared Owl's nest I had been watching and the interested landlord climbed the tree and counted the five white downy young. He also stopped at several old trees with well known holes in them and pounded on the trunk to see if any Golden-eyes were within.

When approaching the Rough-leg's nest we saw one of the great birds launch from the tree-top into the sky, where it circled slowly around as if on guard. Its mate was still standing on the nest, about thirty feet from the ground in an old oak, when we came up below; and it presented a commanding figure mounted on top of its huge nest. When the farmer started to climb the tree the great bird flew and, joining its mate, circled around overhead, but as the man neared its nest it circled near the tree, screaming shrilly. The nest proved to be about six feet high, so high that the farmer could just reach over the edge. He pulled out a partly eaten Richardson ground squirrel and then held up one of the white nestlings for us to see. Overhead the old birds circled around on set wings, the sunset light reddening their breasts and making a beautiful picture. Sometimes one of them rose and circled high in the sky. Three weeks later one of the Rough-legs was seen flying so low that its ferruginous legs, feathered to the feet, showed clearly. The young were still in the nest but almost full grown and fully feathered. The pellets under the tree were composed of ground squirrel fur.

The lordly birds with their huge old nest proved the appropriateness of the name of the farm—Hawk's Rest—for the settlers had shown a rare appreciation of the services of their raptorial friends. Old hawks' nests were found at different places along the shore, and a second Long-eared Owl's nest and a Swainson Hawk's nest were found not far from the Ferruginous Rough-leg's tree. The Swainson's nest which contained three eggs on June 14, on July 6 had three downy young about a week old. A half-eaten Richardson ground squirrel was also in the nest. The Hawk flew and circled around and squealed when the tree was being climbed and the nest photographed.

In the heart of the woods, Purple Martins, whose raucous notes were fre-

quently in our ears, nested in old hollow oaks. It was peculiarly interesting to watch them here, in a site made to seem abnormal by modern usages. They would dart in and out through the dense foliage of the tree tops so fast it was hard to keep track of them; but one nest hole in the cleft of a tall tree I discovered from a hillside above. Its owner, a handsome effervescent young father, went in and out of the nest hole singing as jubilantly as a Bobolink, standing on the edge and singing down into the hole before going in, and on coming up stopping half way out with only glossy head and breast visible, to burst into his wild jubilant song.

While a good many species nested in the timber, there were comparatively few that nested in the brush patches. In the fringe of bushes between the lake shore and the woods a pair of Brown Thrashers—whom I had seen carrying food June 16—ten days later held me up and *smacked* at me till I discovered a stubby-tailed youngster on a branch overhead. Catbirds also probably nested in this fringe of bushes. On its shore edge, under one of the last silver-leaf bushes, on June 18, I flushed a Spotted Sandpiper from her nest with its four ovate eggs all pointing in. The sweet Sandpiper notes, *per'r'r weet, per'r'r weet*, were often heard along the shore, and a loud musical piping song was heard from one circling in over the beach, answered by the ordinary Sandpiper notes down the shore. A pair of Killdeer was also seen and heard along the beach, but they nested apparently in the corn field near the farm house.

In the silver-leaf patches and wild plum thickets back from the shore three birds were especially abundant, the Bronzed Grackle, the Yellow Warbler, and the Clay-colored Sparrow.

The dense thickets of wild plum and spiny thornapple make good shelter for the Grackle colonies with their big nests and large nestlings. When the old males are interviewing visitors to their noisy colonies the visitors have an opportunity to examine the bronze of their plumage. To eyes familiar mainly with museum skins an old male standing on top of the thicket in strong sunlight is almost startling. The bronze of his back while not as yellow as a newly polished brass knocker has the rich glowing quality of burnished bronze—as if each feather saturated in sunlight reflected it from every barbule. The contrast the bronzy back presents to the iridescent green head is also striking. When the young of a Stump Lake colony were being fed, their parents were constantly seen hunting along the lake shore and flying off with full bills, and by the first week in July the woods between the thicket and the lake were full of *Quiscalus* families all talking at once.

Besides the thickets of wild rose, wild plum, and thornapple there were acres of that beautiful bush, the silver-leaf or silver-berry. Sagebrush the silver-leaf is called locally, though the sage of the region is the low *Artemisia frigida*, and the silver-leaf is *Eleagnus argentia*. *Eleagnus* grows head high and over, and its stiff branches with their lovely silver leafage afford safe cover for the gray nests of the Yellow Warbler, *the* Warbler of the region. Not every bush in the prairie country has its Yellow Warbler, but the flash of yellow and the familiar song are such common experiences that you come to realize the truth of the statement that *aestiva* is filling a gap left by nature and filling it abundantly.

Another bird whose voice is commonly heard in the silver-leaf thickets is the Spizella of the prairies, the little Clay-colored Sparrow whose crown when raised looks striped, from its median line, superciliary and line through the eye, and whose white malar streak adds a touch of softness to its plumage. Its call is

an ordinary *tsip*, but its song is individual, a hoarse rasping *kah-kah-kah-kah-kah* that at first surprises and grates on the ear, but as the season waxes comes to be pleasantly associated with the aromatic tang of the blooming silver-leaf, and is peculiarly grateful when several of the little Spizellas are answering each other in the bushes.

Two sets of nests were found in June and July. Young were evidently being fed on June 21, for an old bird with bill full of long wings started and flew straight back into the heart of an *argentina* patch. In the second week of July two nests were found, one just completed and one containing eggs. The second of these was beautifully located on the edge of a lake. It was quite hidden until the low plants were parted, when a small cup containing three lightly wreathed blue eggs was disclosed lying on the glossy fern-like leaves of a cinquefoil. When examined closely it proved to be made of grass stems and lined with horse-hair.

While the Clay-colored Sparrow and the Yellow Warbler were the two most abundant birds of the silver-leaf, they were not its only inhabitants. On the edge of a patch near the farm a pair of Marsh Hawks hid their nest and valiantly fought their windmills in the form of a perfectly harmless bird student. When I was going to photograph the young, with the assistance of two other women, as we pushed our way through an especially high stand of *argentina*, a female Mallard burst from her nest in the thicket just ahead of us. We pressed eagerly on to examine it. Twelve eggs lay in the nest, encircled by a high rim of down, and five of them, as the keen eyes of the women from the farm detected, had already been pipped. The old Duck was needed at home now; we must not keep her away. One of the women quickly twisted some green leaves around a gray bush top for marker, while I noted a north and south line from the farm windmill to a tree on the Marsh Hawk slope, and an intersecting east-and-west line marked by wild plum bushes, after which we hurried away to let the old Duck return to hatch out her brood.

But though we left the neighborhood as fast as impeding bushes would permit, the anxious Duck instead of returning to the nest flew out and began to make wide circles around and around us. As she crossed the sky ahead of us with outstretched level head and neck we could see not only her mottled body but white-bordered blackish tail, and at a glint of light caught the violet of her speculum between its white borders. Before we reached the Hawk's nest, when the Duck had completely encircled us five or six times, we interfered with her orbit. Instead of changing it she started back on her track. She was then headed toward the lake, and as if an idea had suddenly occurred to her, made a slight detour and went down to it. When she returned a few moments later she was accompanied by her mate. Together they flew completely around us—we could see his long green head and neck as he passed in front of us—and then as if reassured by his presence or the result of his inspection, or, perhaps, on the decoy principle trusting to his presence to draw our fire, when their circle reached the nest she dropped down to it and he calmly flew off back to the lake.

Whatever it was that she had brought him for, it was a pretty conjugal episode. But as we were moralizing upon it—up rose this Elsa, her Lohengrin being gone, and to satisfy herself more fully proceeded to circle around us once more! By this time, however, our absorption in our task of photographing the Hawks' nest was so reassuringly obvious that even the doubting Elsa seemed satisfied, for she came no more. Presumably she returned to the nest, but we

could not prove it, for when we left we made a wide detour to avoid driving her from her emerging ducklings.

The next day during the first drops of a thunderstorm we hurried down for a look at the nest. This time the mother, instead of bursting out of the patch and flying off, flew low through the bushes, apparently dragging her wings. She might well use her best methods to decoy away intruders, for all but two of her eggs had now hatched. As we leaned eagerly over the nest a hat-full of downy yellow ducklings huddled back under the bushes. We had barely time to notice their brown eye streaks, ducklike bills, and streaked backs, when the storm burst, and descending rain and hail drove us back to the farmhouse.

Two days later, when we went down with the camera, only one egg and a few bits of shell remained in the nest. Our ducklings had gone! They had doubtless been spirited away to some safe harbor, but find them I could not. The parents—if it were they—I did see later, on the beach. Close to the water sat the duck, bill over back, apparently napping, while the drake kept watch. He lay at his ease on his side when discovered, but afterwards sat up on his feet like a more proper guardian, occasionally moving his handsome green head observantly. When his sleeping mate woke she flew off into the lake and he followed, after which they swam around side by side as serenely as if there had never been an Elsa and Lohengrin episode!

Washington, D. C., May 23, 1915.

A CONVENIENT COLLECTING GUN

By LOYE HOLMES MILLER

WITH ONE PHOTO

THE MAN with questionable standards in the matter of Sunday observance or of conformance to public park regulations is not the only man who may be interested in a collecting pistol. Despite the implied shadow upon his reputation, the writer asserts that he has found a collecting pistol an extremely useful weapon. The field trip of other than ornithological nature, where a twenty-eight inch gun barrel would be out of the question; the one hand-bag journey when nothing bigger than a holster gun can be crowded in; the country walk where one may be well within the law of both church and state, and yet not wish to be made conspicuous by a full-grown shot gun; the expedition after lizards;—these are all occasions upon which the collecting pistol has served the writer well. It has added many valuable specimens to his collection and has established one record for the region west of the Rockies.

My experiments began in the high school days, when an old Colt's navy revolver was bored out smooth, carried to school in a clarinet case, and used on the way as a bird-call. The path to school was four miles long.

This rather heavy ordnance was later supplanted by an old Smith and Wesson pocket revolver with ten inches of brass tubing thrust down its throat and sweated in with soft solder. The most effective weapon, for its size, is the one now used and which forms the subject of this note.

A Colt, .38 calibre, Police Positive Special revolver forms the basis of the