

four minutes to feed and brood the nestling. While she sat on the nest I saw her, at one time, peering over its edge at the piece of cotton below.

I was not quite certain whether she had lifted the cotton with her bill or her feet; so the cotton was replaced for another trial. She repeated her method of attack. She hovered over the cotton, trying to lift it with her bill, but she could lift only one end. It stuck to the nest and the force which she was able to exert at the tip of her long bill was not sufficient to dislodge it. Failing thus to remove it, she alighted on the edge of the nest, where she stood poking and pushing at the cotton, protruding her tongue into it, and trying to roll its edges into the nest. Next, she sat in the middle of it and tried to tuck it in, around her body, lifting and pulling the edges up and over toward her. She did not try to tuck it into the outside of the nest wall as in the first experiment, but she finally went through the kicking performance previously described and, after a short period of this work, left the nest. She soon returned, however, to repeat the same methods and to leave again. Having returned for the third time she perched on the edge of the nest and tried, apparently, to insert her bill through the cotton covering; meanwhile the nestling's head was visible to me through a small space, on my side, where the parent bird had previously lifted the cotton. She failed to pierce the cotton and went away and I removed the covering. I do not know where she was, perhaps on a twig nearby, but she did not return while I was there, though I waited for some time. She was on the nest, however, when I visited her again in the evening.

After two more days, with some compunction, I once more subjected the hummingbird to the same ordeal. It seemed probable, in the light of previous experience, that a short time would suffice to secure a better photograph. But the hummingbird made no effort whatever to remove the cotton or to tuck it in. For an hour and a half or more she stood on top of it, with untiring patience, doing nothing more than to shade the young nestling when the sun shone on the nest. This she continued to do until I finally relieved her of the nuisance.

Springfield, Illinois, February 16, 1923.

MORE NOTES FROM SASKATCHEWAN

(WITH TWO PHOTOS)

By H. H. MITCHELL

THE following observations may be of interest as a continuation of some few notes, together with a brief description of the province, which appeared in the *Condor*, *xxi*, 1919, pp. 222-225. Outside of the records noted from the Big River district is one of importance that came to hand later. This record is placed at the end of the list below. During the season of 1921, from May 12 to July 22, I again visited the Cypress Hills, but this time confined my collecting to the northern parts where the country is well wooded, largely with coniferous trees, in sharp contrast to the bare southern slopes some thirty miles to the south.

Large hawks were apparently scarce; two pairs of Red-tailed, a few Swainson, and still fewer Ferruginous Rough-legged hawks were seen. Two pairs of Richardson Merlins were noted; a male and female were taken together with a set of five eggs slightly incubated, June 10, in an old crow's nest fifteen feet up in a jackpine. Nighthawks were rare; only one pair was seen during June and July, doubtless *sennctti*. Crossbills were seen occasionally in small bands, and more rarely in pairs; White-winged Crossbills were taken July 6, and American Crossbills, July 8. White-crowned Sparrows were common breeding birds, much more numerous than on the south slopes of the hills, as noted in 1919. Wright and Least flycatchers were about equally present, several of each being noted. Pink-sided Juncos were quite common, and several nests were found: earliest date, May 14, the nest containing four fresh eggs. In the south hills I have rarely seen this junco.

Big River, where I collected from May 17 to June 23, 1922, proved to be



Fig. 48. A SMALL 'MUSKEG' NEAR BIG RIVER, SASKATCHEWAN.

a most interesting district. It lies about 300 miles north-northeast of the Cypress Hills, north of the Saskatchewan River in the forest belt. I was camped on the east side of Crooked Lake which is about 28 miles long though averaging only a mile wide, with its trend lying in a northwestern direction. Much of the country has been burned over, such areas being strewn with fallen trees and a growth of small scrub. The timber left standing on other areas comprises jackpine, spruce, tamarack, birch, poplar, etc. This lake appeared to be a favored migration route. Warblers were especially abundant; nowhere else in Saskatchewan have I seen such numbers in any migration season. May 20 saw the height of this wave; by May 26 the Canadian, Black-poll, Cape May, Magnolia, and most of the Black-throated Green and Tennes-

see warblers had moved northward; several Mourning Warblers remained here to breed.

To hear the summer songs of many species that I had previously known only as silent migrants in the south was a delight and, in some cases, a surprise; for example, the Ruby-crowned Kinglet and Hermit Thrush. The Lincoln Sparrow's song made me think of the Winter Wren, a bird I was anxiously looking for, till I recognized its source. The Blue-headed Vireo's song, while typical of that family, 'had me guessing' for a while, as also did that of the Purple Finch.



Fig. 49. NESTING SITE OF SOLITARY SANDPIPER; OLD NEST OF ROBIN JUST UNDER THE WHITE CROSS.

A small muskeg (see fig. 48) about two miles from camp, proved to be an interesting nesting place. Eight pairs of Rusty Blackbirds were counted, and young were found just hatching on May 29. Solitary Sandpipers, Western Wood Pewees, Least and Olive-sided flycatchers, Purple Finches, Ruby-crowned Kinglets, Lincoln Sparrows, Song Sparrows, Chipping Sparrows, Slate-colored Juncos, and Hermit Thrushes were all noted nesting near this 'shaking bog' and pine-tree surrounded pond. My notes on this district are

very numerous. A few of the more important records based on specimens taken are as follows.

Larus philadelphia. Bonaparte Gull. A female taken May 22 had one egg in the ovary which she was about ready to lay. Several of the birds were seen passing up and down the lake up to the time of my leaving, so they probably were nesting not far off.

Helodromas solitarius. Solitary Sandpiper. Found breeding on the edge of the muskeg in an old nest of the Robin, 10 feet up in a 'moss'-covered spruce, June 3. The nest was carefully examined and found to contain two eggs. Four days later, hoping to get a full set, I found it had been forsaken, no more eggs had been laid, and the birds were evidently resuming breeding activities on the opposite side of the pond. The birds were then taken and proved to be typical *solitarius*.

Chordeiles virginianus. Nighthawk. Abundant, breeding in burnt areas. This eastern form is much more numerous here than *senetti* is on the prairies to the southward.

Zonotrichia albicollis. White-throated Sparrow. This was the commonest breeding bird of the district. Eggs just hatching were found June 14.

Spizella passerina. Chipping Sparrow. Common, breeding throughout the district. Previous notes on this species in other localities had indicated it to be uncommon.

Junco hyemalis. Slate-colored Junco. Common, nesting mostly in burnt-over areas.

Piranga ludoviciana. Western Tanager. Two males were taken May 23. These were the only ones seen and, as far as I can find out, are first records for the province based on specimens.

Dendroica tigrina. Cape May Warbler. Fairly common in migration. None noted after May 26. Three taken May 19, 21, and 23, were the first I had seen in the province.

Nannus hiemalis. Winter Wren. Only one pair was seen. The male, taken June 10, constitutes the first specimen recorded for the province, so far as I know. Professor Dexter had previously reported it common about Big River, but, although House Wrens were common, I found the Winter Wren rare, at least during that particular season.

Otocoris alpestris leucolaema. Desert Horned Lark. A breeding male and female taken in a clearing near Big River village, May 22, are apparently referable to this form. They differ somewhat from birds taken to the southward on the prairie, which I have called Desert Horned Larks; possibly these latter will eventually become the Saskatchewan Horned Lark, *enthymia* of Oberholser.

Stercorarius pomarinus. Pomarine Jaeger. A female taken four miles from Yellow Grass, November 9, 1922, by Mrs. Chester Larsen "appeared near the house at a slough and was mistaken for a hawk". This is, no doubt, the first specimen recorded for Saskatchewan.

Regina, Saskatchewan, February 10, 1923.