

his mandibles opened just a little at each thrust. In all such cases the Eagle can well afford to adopt a policy of indifference; but when a small Hawk at Vermilion this year tried the same tactics, it met with a quick surprise, for after dodging a number of times, the Eagle opened its talons and with one thrust suddenly stopped the game and barely missed the Hawk. Under certain conditions, the Eagle, as already intimated, may appear to be wary, suspicious and timid to the last degree, but as we have also seen, such conditions do not always prevail. Both adult and young birds, when hard pressed on the ground, or for any cause unable to fly, can put up a stiff fight against any assailant.

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NESTING RECORDS OF THE WANDERING TATTLER AND SURF-BIRD IN ALASKA.

BY OLAUS J. MURIE.

Plates XVI-XVIII

WHILE engaged in field work for the Bureau of Biological Survey on the caribou and other big game of Alaska I had opportunity to gather some data on interesting nesting birds, which finally resulted in establishing nesting records of the Wandering Tattler (*Heteroscelus incanus*), and Surf-bird (*Aphriza virgata*).

On June 1, 1922, I was hunting for grizzlies in the Alaska Range at the head of Delta River, and while coming down Phelan Creek, saw a dull slate-colored bird fly by and perch on a rock at the edge of the turbulent water, at some distance. I did not recognize the bird, and although I had only a high-powered rifle, I fired at it, hoping to get enough for identification, but missed, and the bird flew on up the stream. Later, by a process of elimination, it suddenly occurred to me that it must have been a Wandering Tattler, which I had not expected to find high in the mountains.

This species was not observed again until July 9 in the same year, when the first evidence of nesting was found. This was on Jennie Creek, a small tributary of Savage River in another part of the Alaska Range. On that date a downy young was collected

(U. S. National Museum, No. 287703, Biological Survey collection). The adult was not collected for several days, in the hope of finding more young, but on the 16th this bird, which proved to be a male, was taken. I had seen the bird a number of times before the young one was found. Whenever I came near it the parent met me, scolding from a perch on a rock, driftwood stump, or the bare limb of a tall willow. Finally, on the date mentioned, I spied the little gray youngster running away over the gravel bar.

A few days later two more adults were seen on upper Savage River and one on Sanctuary River, a stream running parallel with the Savage.

In the summer of 1923 work was resumed in the Savage River district in connection with the caribou herds. My brother, Adolph Murie, accompanied me as assistant. On June 3, during a hasty visit to the place, three different wandering Tattlers were observed along the gravel bars. All scolded at my approach and I hunted enthusiastically for nests, but found none. In one instance after a period of excited scolding the bird rose high in the air and flew away to some distant point. I concluded that there were probably no nests and that the birds were merely interested in a prospective nesting site. The following day I saw another bird on Jennie Creek as I returned to Fairbanks.

A serious flood on the Nenana River delayed us so that it was the end of June before we could move into the mountains for the summer's work. On June 30 we loaded our outfit and supplies on a light spring wagon, and with a team of horses, started for Savage River. Mr. G. Buhmann, at that time a ranger in Mount McKinley National Park, drove the team and was to return with the horses after our camp was established. There was practically no road, and we got no farther than the mouth of Jennie Creek that evening, a distance of eleven miles from our starting point at McKinley Park Station. A Wandering Tattler was seen in the distance on lower Jennie Creek.

The following day, July 1, we continued up Savage River nine miles and made permanent camp. We had been on the lookout for the birds and I had pointed out to Mr. Buhmann one in the distance, that he might have an idea for what we were looking. About noon Mr. Buhmann and my brother were riding on the



1. UPPER SAVAGE VALLEY: HABITAT OF THE WANDERING TATTLER. NEST WAS PLACED ON THE GRAVEL IN THE FOREGROUND.

2. NEST AND EGGS OF THE WANDERING TATTLER (*Heteroscelus incanus*).

wagon, while I walked ahead over the usual gravel bars, when Mr. Buhmann suddenly called out to me, "Is that one of your birds?"

I turned and saw a Wandering Tattler flying away. The bird had been flushed by the horses. We all three walked back carefully beside the wagon and in a few moments spied the nest and eggs a short distance to the rear, not over six inches from the wheel track! Mr. Buhmann picked up one of the eggs, wishing, as he enthusiastically explained, to be the first one who had ever handled the egg of a Wandering Tattler. I explained that the eggs should not be disturbed until photographed and it was carefully replaced in the nest. A series of exposures was made of the nest and eggs, and we moved away some distance with our outfit and prepared our lunch. In the meantime the bird returned and settled on the nest. Several photographs were then taken of the bird on the eggs, the last one at a distance of about 10 feet or less. The nest and eggs were then taken and carried to our camping ground.

All our observations indicate that this nesting site is characteristic, that the Wandering Tattler prefers the gravel bars of mountain streams, as typified by Savage River. These rivers are rapid and split into numerous channels, sometimes in an intricate network over the gravelly valley. This nest was found on Savage River about five miles above the mouth of Jennie Creek at an elevation of about 4,000 feet. It was placed on a gravel bar about 30 feet from the nearest water, and was sunk in a shallow depression in the gravel. It was well built, unusually elaborate for a shore-bird. It was composed principally of fine roots carefully woven into a firm structure, including a number of twigs around the edges. Small bits of twigs and some dry leaves had been used for lining. It was so compact that I had no difficulty in picking it up and transporting it to camp. The diameter of the nest to the edges of the finely woven body was about five inches, but of course some of the twigs extended much farther.

The nest contained four eggs, pointed ovate in form, the general coloration of which reminds one of Crow's eggs. The ground color is pale olivine to glaucous and pale glaucous, spotted with vandyke brown and burnt umber, in places becoming dull black,

again lightening to verona brown, with scattered spots of light quaker drab. The large spots are massed at the larger end of the egg, in one instance grouped in a wreath. Measurements in millimeters are as follows: 43.3 x 32.6; 44 x 31.5; 44.3 x 31.6; 44.5 x 31.6. The eggs were well advanced in incubation.

On the same date Adolph Murie prepared two specimens of the downy young, secured on another gravel bar. I judge these to be from two to three days old—field Nos. 21 and 22 (not yet catalogued in the U. S. National Museum). These downy young may be described as follows: under parts dull white with a faint indication of grayish on upper breast and lower fore neck; upper parts pale gray, with a very slight suggestion of buffy on wings, rump, and tail, more evident in the fresh specimens than in the skin; upper parts narrowly, irregularly, and indistinctly barred with blackish, with dull black loreal and postocular streaks and with irregular black spots on hind pileum. In a colored sketch made from freshly killed bird, tarsus and upper part of toes appear dull glaucous green; the under surface of foot olive yellow; bill dull glaucous blue.

At least three pairs of Wandering Tattlers nested on Savage River, perhaps more; that is to say, three nests, for both adults were never seen together, and it may be that only one looked after incubation and care of the young. However, the adult secured with the downy young in 1922 (U. S. National Museum, No. 287014, Biological Survey collection) was a male, and one would ordinarily expect the female to remain with the nest also. This is a point which was not determined.

No more eggs were found, as the other birds under observation had completed incubation. We were very busy on other work higher in the mountains and did not have an opportunity to study these birds as thoroughly as one would like. As we passed up and down the river during the summer the birds were observed on many occasions, both adults and young. Near our camp was a muddy spring, a caribou lick, from which flowed a remarkably clear, cold brook. A Wandering Tattler often flew by our tent to this spring, evidently to feed. Aside from this instance the birds were invariably found on the gravel bars, usually near the water's edge.

Whenever I approached the home grounds of a Wandering Tattler he would fly to meet me and would scold excitedly, uttering a vigorous *deedle-deedle-deedle-deedle-dee*, with variations which I failed to record minutely. At such times a whistled "cheep," imitating a chick, would bring the excited bird within a few feet, and photographs were secured in this way. On July 30 I saw a young bird, still downy. On August 8 one young bird was fully feathered and was seen on several occasions afterward. The last appearance of the Wandering Tattler for the season was on September 19. There was some doubt whether or not this was an adult.

It is unsafe to draw any definite conclusions about the breeding range of this species, with nesting data from only one locality. However, judging from indications, one may make a guess. It is practically certain that the bird observed on Delta River in 1922 was of this species; Charles Sheldon secured a female at the head of Toklat River, May 22, 1908; and there were several on Sanctuary and Savage Rivers and Jennie Creek as described above. Practically all the streams emerging from the Alaska Range have certain characteristics in common. They are rapid, divided into many channels, flowing through gravel formation. Observations indicate that such is the environment chosen by the Wandering Tattler; and it is possible that the nesting range will be found to extend over most of the Alaska Range, on the north slope particularly, but possibly also on the south slope. Further work will no doubt reveal nesting areas from many other parts of at least this mountain chain. I have not visited the Endicott Range in the summer season, and have little data on the nesting birds of that region.

Observations on the Surf-bird were not extensive, but enough was learned to show the location of its breeding grounds. My first experience with this bird was on McKinley Creek, a tributary of Middle Fork of Fortymile River, July 13, 1921. With a companion I was travelling over the hills of that region, studying the caribou on their summer range. We carried packs on our backs and had five dogs, each with a small pack. On this date we were descending a slope above timberline, headed for the timber to camp for the night. Suddenly two birds jumped out before us

and made an outcry, circling about. My first impression was "Turnstones," but later I saw clearly that they were Surf-birds. We put down our packs and hunted for a nest and young, and were presently rewarded by seeing a downy young one striding away bravely over the rough ground. After securing the young I shot one of the adults, which I found to be the male. No more young birds could be discovered and we finally went down to the timber to make camp, as darkness was approaching.

The young bird was probably from five to seven days old with pin-feathers appearing on scapulars, wings, and sides. Under parts dull white; upper parts clay colorin, namon buff, and dull black, in an irregular speckled pattern, with rather distinct white spots over the lower back, rump, and thighs; crown white on anterior portion with two definite median black spots; posterior part of crown mainly dull black spotted with white and clay color; a black loreal streak and black rictal streak, with some other blackish spots on side of head, which probably form a definite pattern in life.

This description is based on the dried skin, now entered in the U. S. National Museum as No. 286764, Biological Survey collection. The adult is No. 286767 in the same collection.

The nesting ground of the Surf-bird is very different from that of the Wandering Tattler. The Surf-bird was found on a gentle slope of a high hill, a considerable distance above the timber, where the ground was covered with a lumpy growth of mosses, grass, and other low vegetation. Perhaps we may term it a "mossy" type of vegetation.

This was the only time I found the Surf-bird in the Fortymile region, but on August 15, 1921, another was seen in the hills between the upper Chena and Chatanika waters. When I flushed this bird on a bare hilltop it appeared so perfectly fearless that I tried for a photograph. It flew only a short distance each time I approached and seemed attached to that vicinity, but finally I lost sight of it behind a rocky point. I could not be absolutely certain, but I judged this to be an immature bird and probably not far from its nesting ground.

Surf-birds were seen once more, this time high in the Alaska Range at the head of Savage River, July 4, 1923. A flock of twelve, evidently non-breeders, were feeding on a high slope. I had



WANDERING TATTLER (*Heteroscelus incanus*).

1. FEEDING ALONG WATER'S EDGE.

2. ON NEST, INCUBATING EGGS.



1. YOUNG OF THE WANDERING TATTLER.
2. WANDERING TATTLER SCOLDING FROM WILLOW BUSH, ON
NESTING GROUND.
3. EGG OF WANDERING TATTLER, SLIGHTLY REDUCED.

nothing but a big rifle, but secured a specimen with a hard-nosed bullet.

These observations establish one nesting record for the Surf-bird, but we may venture to infer from the meager data obtained that this bird nests, though perhaps rarely, on the high mossy slopes in the region between the Yukon and Tanana Rivers. These mountains are generally not rugged, but rounded, with timber confined in many localities to the creek valleys. The birds seen in the high Alaska Range were not nesting, but their presence there may be suggestive. Many of these high mountains have slopes covered with the same type of vegetation as that on McKinley Creek, and it is probable that later observations will prove the Surf-bird to be a summer resident of that section.

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A VISIT TO TOM LINCOLN'S HOUSE WITH SOME AUDUBONIANA.

BY CHARLES W. TOWNSEND.

ON June 27, 1833, Tom Lincoln brought to Audubon at Natashquan, Labrador, a sparrow he had shot which was at once recognized by the naturalist as a new species, and was named by him Lincoln's Finch. Tom Lincoln's name is well known to ornithologists only in this connection, and little is known about the man. In a recent visit to his son, Dr. Arthur T. Lincoln, at the old homestead at Dennysville, Maine, I found many memories of him and of Audubon and of the Labrador trip.

In 1636, Tom's ancestor, Thomas Lincoln, came from the west of England and built a house at Hingham, Massachusetts, a house that is still standing and still occupied by a Lincoln. Tom's grandfather was General Benjamin Lincoln of the Revolutionary war. His father, Theodore, with James Russell and Thomas Lowell in 1786 bought two townships about the mouth of the Dennys River near Eastport, Maine. Here Theodore, called the Judge, built his house on a knoll that commanded a beautiful view