## NESTING HABITS OF A GREAT HORNED OWL

O. J. MURIE, FAIRBANKS, ALASKA

For a number of years I had known that a pair of Great Horned Owls had a nest in a patch of heavy woods about four miles south of Moorhead, Minn., but I had never had the time to hunt it up.

In the spring of 1920 I determined to find it. April 15 was the first opportunity I had to spend much time in that locality. On that day I began searching the woods, tacking back and forth, watching closely for any suspicious behavior of the owls. The woods are composed principally of elms, some of them of considerable size, boxelder, a stray cottonwood on the bank of the Red River, a good many basswoods, and here and there a grove of white oak. In the edge of the woods were frequent plum thickets. This type of woods extends in a comparatively narrow belt along the banks of the Red River, with the cultivated prairie extended away in the distance on either side.

Presently an owl flew away before me, from tree to tree, and after a little, hooted. I flushed it several times, endeavoring to learn from its actions in which direction it had the nest. I changed direction a number of times and once it performed in a manner clearly meant to entice me away. It lowered its head and glared at me from its distant perch. Then, extending its wings, it commenced to wobble and flutter on the limb as if it were about to fall. I moved toward it and it flew on, and as I continued in that direction the bird became quiet. I therefore returned to the locality where the owl had performed, and presently found two owl feathers on the ground. I heard the owl hooting, and glancing up in a big elm, spied an owl's tail projecting over the edge of a broken stub. The first owl now became greatly excited, came much nearer and repeated the previous performance, apparently having great difficulty retaining its balance, with elaborate flapping and swaying to keep on its perch, in a very realistic manner. I left without disturbing the brooding bird, intending to return later to secure photographs.

On the 18th I returned to the nest, to find a flock of crows worrying one of the owls. While climbing a small tree nearby, with the camera, the brooding owl flew off and the crows promptly attacked it. Neither of the owls, however, paid much attention to the crows this time, but watched me intently, utter-

ing irregular, strange hoots, differing from the usual, characteristic call of this bird. Upon climbing to the nest, about fifteen feet from the ground, I found a shallow depression in the stub of a big limb, in which lay three owlets. As usual there were three sizes, the largest about twice the size of the smallest. The runt was downy, but the other two were beginning to get their feathers. Around the little owls lay five large Brown Rats, a a field mouse (Microtus pcnnsylvanicus) and a Least Weasel (Rivosus). The head and sometimes the shoulders were eaten off all these animals except the weasel, which was intact and made a good specimen in my mammal collection.

April 24 I again went to the nest. The owls were much concerned and ventured quite near. As I was climbing to the nest, on a slender pole, I received a heavy blow on the side of the head and my hat flew off. This actual attack on the part of the owl was unexpected and I slid to the ground for my hat, before continuing the climb. I found one ear bleeding. I watched the owls carefully as I climbed the second time. In the nest were two brown rats, beheaded, and the hind quarters of a cotton tail. The parent birds continued hooting, snapping their beaks and swooping near me.

April 25 I found two brown rats in the nest, without heads, The young were brought to the ground and photographed.

May 10 I found a leg and some flesh of a female Mallard, possibly a tame duck from a farm near by. The young owls were becoming yellowish brown.

May 15 I found an owlet perched on a projection above the nest-cavity. The parents were quite warlike. I climbed to the nest and stooped to look into the cavity when I received a stunning blow in the back of the neck. For a brief instant I felt slightly dazed. I found six punctures in the skin bleeding. I had never thought there would be such weight behind a blow from an owl. The bird swooped at me again, but I was on watch after that and a wave of the hand was enough to turn the bird aside. Again I found two rats in the nest, one of them melanistic. The young owls were brought to the ground and photographed again.

May 16 I found two of the owlets perching above the cavity and one of them fluttered to the ground.

May 23 all the birds had left the nest, and after a little search, the three young owls were discovered in various trees near by. After this date I saw no more of them.

The owl's nest was not tidy. There was no indication of any nesting material or lining, but the cavity was littered with bits of fur, bones and miscellaneous matter in various stages of decomposition, with an unpleasant odor.

## NESTING OF THE SANDHILL CRANE, WARNER VALLEY, OREGON

BY DR. A. G. PRILL, SCIO, OREGON

During my visit to this region in May and June of this year I was fortunate in locating the nest of a number of Sandhill Cranes. Nests of this species are by no means common, and require days of traveling through the marshes, and overflow meadows of the valley, to locate them.

The region covered in my investigation, coveted an area of 36 miles long by from 5 to 10 miles wide, or about 180 square miles.

Ten pairs of Sandhill Cranes were nesting in this territory, which would mean about one pair of birds to every 18 square miles of territory.

Warner Valley has some half dozen lakes, surrounded by tules and flags, and wild meadow lands, all of which is covered with water, but here and there small islands were found, which were always above high water.

The places selected for the nest of this Crane were generally several miles out in the marshes, and the nests located were all on the top of large masses of dried tules and flags, and grass, which had undoubtedly been piled up in this manner the year previous in harvesting the hay crop.

These masses were generally 5 feet in diameter and at least 12 inches above high water mark, and in the center a slight depression is made upon which the two eggs or young are found. The nesting dates are from May 20 to June 10. Eggs found May 30 were about half incubated.

A nest of young found on June 6, containing two young, which were about ten days old, were very spry, but did not seem much alarmed at being handled. They posed readily for the camera and several fine views were secured.

The young at this time were covered mostly with down and were a beautiful silky brown in color, and were just beginning to show the formation of feathers.