

A GOSHAWK NEST IN THE UPPER SONORAN LIFE-ZONE

WITH THREE ILLUSTRATIONS

By RICHARD M. BOND

On May 21, 1939, about 20 miles north of Ursine, Lincoln County, Nevada, Mr. Stanley G. Jewett of the Biological Survey, Mr. Merle R. Gross of the Soil Conservation Service, and I were driving up one of the tributaries of Meadow Valley Wash. We were in an area almost exactly 6000 feet above sea level. The bottom lands were mostly given over to a dense, tall growth of sagebrush (*Artemisia tridentata*) and the hills on each side of the narrow valley were covered with a typical piñon-juniper vegetation (*Pinus monophylla* and *Juniperus utahensis* or *J. monosperma*). In other words, the area was typical Great Basin Upper Sonoran Life-zone.

At one point the valley narrowed into a box canyon about a quarter of a mile long and less than 100 yards wide. It was pleasantly shady, and appeared to be a good place to see birds, so we stopped and walked around through the trees. I remarked that



Fig. 26. Goshawk nest in a narrow-leaved cottonwood tree, Lincoln County, Nevada.

there should be a Cooper Hawk's nest in the cottonwoods somewhere. After a few moments, Mr. Jewett called that he had found the Cooper's nest, and I went over to look at it. I threw a rock at the tree, and the incubating bird came off, but turned out to be not a Cooper Hawk, but a fine Goshawk (*Accipiter gentilis atricapillus*) in full adult plumage, cackling angrily.

I climbed to the well-made nest (fig. 26) and found 3 eggs (fig. 27), one of which was caught by a few twigs at the edge of the structure. This egg was cold and addled, and was subsequently turned over by Mr. Jewett to Mr. J. C. Brawley. The male hawk joined his mate in a few minutes, and acted as annoyed as she, but perhaps because there were three of us present, I was not actually struck.

The tree in which the nest was placed was a narrow-leaved cottonwood (*Populus angustifolia*) and was about 50 feet from the dirt road and in plain view of it. The nest was about 25 feet from the ground, and appeared not to have been used before, although I was told locally that hawks (not certainly Goshawks) had nested in the canyon for at least ten years. The stream flows on the surface all the year in the narrow, rocky canyon, and there is a thin strip of mesophytic vegetation close to the water. This strip averages not more than 50 yards wide and is about $\frac{1}{4}$ mile long, so that it totals less than 5 acres. The most conspicuous plants in the strip are, in addition to



Fig. 27. Nest and eggs of Goshawk. Addled egg replaced with others for the photograph.

the narrow-leaved cottonwoods, a small willow (*Salix geyeriana?*), chokecherry (*Prunus demissa*, or *P. d.* var. *melanocarpa*), and a species of *Ribes* (possibly *R. velutinum*). Under, among and beside these plants are the Upper Sonoran *Artemisia tridentata*, *Pinus monophylla*, and juniper. The most conspicuous birds of those zonally restricted were the Western Tanager (*Piranga ludoviciana*) of the Transition and Canadian zones (still present, July 2), and Woodhouse Jay of the Upper Sonoran.

Even if the little strip in the canyon be assigned to the Transition Zone, of which it is a very poor example, the hunting range of the hawks must have been practically all in the Upper Sonoran, which surrounded the nest site in every direction. This seems to be a very unusual situation, since the Goshawk is usually reported as nesting in the Canadian Zone (Dixon, Condor, vol. 40, 1938, pp. 3-11 [in Jeffrey pine]; Bent, U. S. Nat. Mus. Bull. 167, 1937, p. 139; Hall and Grinnell, Proc. Calif. Acad. Sci., 4th ser., vol. 9, 1919, p. 62) or very rarely from well up in the Transition (van Rossem, Pac. Coast Avif. No. 24, 1936, p. 19). This seems to be the second definitely recorded nesting in the state of Nevada.

The nest was visited again on July 2, in company with Mr. Paul Maslin. We arrived at the site at about 1:30 a. m. and put down our sleeping bags within view of the nest, in which we could see more than one bird in the beam of a flashlight.

At the earliest dawn, we were wakened by the old female's derogatory remarks, but we remained quiet until about seven o'clock when the light was good enough for photography. The adult male was not seen on this visit.

The nest contained two young, a large, but still mostly downy, female (fig. 28), and a smaller but more developed male. Judging from the photos published by Dixon



Fig. 28. The young female Goshawk on July 2, 1939.

(Condor, vol. 40, 1938, p. 3), the birds were between 26 and 32 days old. The young female cackled like her mother, but at a higher pitch and less loudly. The young male was silent. Both young had developed the reflex of striking with the feet, and the young female showed fear, and nearly backed off the nest, but her brother held his

ground. The nest contained no pellets, but there were numerous feathers of Woodhouse Jay (*Aphelocoma californica woodhousei*), Piñon Jay (*Gymnorhinus cyanocephalus*) and Red-shafted Flicker (*Colaptes cafer collaris*), and the remains of a rabbit, apparently *Sylvilagus audubonii*.

Both young were lowered to earth and photographed. They soon gave up striking and stood quietly where placed, making no attempt to escape or hide. The female, after a few moments, showed no objection to being handled, but the male assumed a menacing attitude and remained in a fighting crouch most of the time. He was banded (no. 38-706445) and replaced in the nest, and his sister was abducted to be trained for hawking.

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