

A late record for Northern Phalarope in West Virginia.—On November 23, 1958, Gordon Knight, John L. Smith and I were searching for waterfowl on Lake Lynn of the Cheat River, Monongalia County, West Virginia, when our attention was drawn to a small bird swimming about 50 feet offshore. The bird was studied carefully for about 15 minutes with both 7× binoculars and a 30× telescope, and proved to be a Northern Phalarope (*Lobipes lobatus*). Mr. Knight and Mr. Smith were not previously acquainted with this species in life and were unfamiliar with the characters separating the three phalarope species. Accordingly, I questioned them carefully as to what they were seeing. It was agreed that the bird had the striped upper back and the thin, black bill of this species. The bird appeared to be in good condition and was feeding in the typical phalarope manner. It is of interest to note that there had been no pronounced atmospheric disturbance to bring this unusual bird to our region. It was not possible to collect the bird at the time, and when I returned on November 26 to attempt to collect it, I was unable to locate it.

There are very few previous records for this species from West Virginia. The U.S. Fish and Wildlife Service has a record from Parkersburg, Wood County, on September 26, 1888 (C. S. Robbins *in litt.*). G. Eifrig collected one on the Potomac River in Mineral County on May 23, 1901 (1902. *Auk*, 29:76). Bibbee (1934. *W. Va. Agric. Exp. Sta. Bull.* no. 258) lists two collected at Parkersburg in "the late fall" of 1922. I have found no further records and thus it appears that this is the first record for the state in the past 36 years, and is the first record for this part of the state.

Mr. Chandler Robbins has kindly furnished me with information pertaining to late dates for this species from the Fish and Wildlife Service files. The only other inland record approaching this one in lateness is apparently one from Milwaukee, Wisconsin, on November 5, 1949. Along the Atlantic Coast there are about seven records for November, three for December, and two for February. I am unable to locate any Ohio, Pennsylvania, or Maryland dates that approach this one in lateness.—GEORGE A. HALL, *West Virginia University, Morgantown, West Virginia, March 2, 1959.*

Observations at a Goshawk Nest in Northwestern Montana.—My banding station, at Sun Camp Ranger Cabin, was on the shores of St. Mary Lake, which is part of the Hudson Bay drainage system on the east side of the Continental Divide. The lake is surrounded by peaks of the Lewis Range of the Rocky Mountains in Glacier National Park, Glacier County, Montana. The latitude of 4839 is used on banding records for this Sun Point Area. The old log ranger cabin is in the forest of the Spruce-fir Zone, the Engelmann spruce-subalpine fir association of Daubenmire (1943:334-337), at 4500 feet elevation, and can be reached only by trail or boat.

In mid-July, 1956, I saw a Goshawk (*Accipiter gentilis*) darting through the tree-tops near our cabin. At intervals the call-note of *kak kak kak* was repeated. I soon discovered the cause of these staccato cries. The hawk's nest was well hidden about 60 feet up in a fork of an Engelmann spruce located only 50 feet back of our cabin along the bank of Baring Creek. The stream emerges from a canyon, drops down as Baring Falls nearby, and flows into St. Mary Lake.

Bailey (1918:147) reports sighting one Goshawk in the Many Glacier Area, and one was seen by H. C. Bryant in upper St. Mary Valley. Both areas are on the east slope of the Continental Divide and have the same type of forest habitat as St. Mary Lake. Dumas (1950:234) found the Western Goshawk in the Mixed Forest of the Montane Forest Area in S.E. Washington. Snyder (1950:23), in a study in the Rocky Mountains east of the Continental Divide in Boulder County, Colorado, found the Goshawk to be a permanent resi-

dent in the Rocky Mountain Coniferous Forest. Although Glacier is farther north than these studies, the type of forest habitat is similar. Here a tree-shaded habitat near water was selected by the nesting Goshawks. The Goshawk is found in boreal forests, generally on slopes of canyons not far from water, according to Bent (1937:139-140).

I am indebted to my son, Monty, who climbed the difficult tree regularly to make close-up observations and pictures of the birds. The nest measured 3 feet long, 2½ feet wide, and 2 feet deep. It was composed of sticks and green alpine fir branchlets which were rather loosely put together. It was lined with fir foliage and some feathers. It appeared almost flat, with only a shallow depression on the top.

The first close-up observation on July 24 revealed four young Goshawks in downy coats of silky white. The number of eggs and young was three in California Goshawk studies by Dixon (1938:5) and Ingles (1945:215). Bent (1937:128) found that the Goshawk ordinarily lays three or four eggs.

On August 5 Monty climbed the tree to band the young, but as he reached the nest all four young hopped out and fluttered down to smaller trees, hanging upside down from small branches clutched firmly in their talons. However, one young bird was strong enough to fly to the top of a nearby black cottonwood. We successfully retrieved three of the young birds but could not reach the one in the tree-top.



We photographed and banded the three young birds. Although the birds snapped their beaks they did not bite. One of the young was a runt, noticeably smaller than the others. They tried to stay out of the hot sun by moving into shaded areas. Monty then took the birds in a sack and safely returned them to the nest. As he started down he had to ward off an adult Goshawk by hitting it with his tin hat. Other observers have suffered gashes and torn clothing (Rowley, 1939:247; Dixon, 1938:4), or have been struck while walking along a trail near a nesting site (Jewett, 1953:162). The young Goshawk in the tree-top returned to perch above and near the nest but did not return to the nest, although the adults fed it near the nest.

My first week of observation was that of July 22 when the young downy Goshawks were rather quiet and inactive in the nest. During the second week, that of July 29, we had observed some fighting over food and heard much peeping sounding like baby chicks. The birds at this time arranged themselves around the outside portions of the nest.

We had banded the young birds at the beginning of the third week, August 5, and from nest observations and the juvenal plumage estimated the age of the birds to be two weeks plus. During this third week the young birds exercised daily by stretching and flapping their wings. Dixon (1948:7) found that much time was spent by the young in preening and exercising by flopping back and forth on the nest. We saw the birds take many short floppy flights from limb to limb. They tore off meat with their beaks while holding the prey with their talons. Then they sat on the edge of the nest to complete the swallowing of large chunks of meat. They regurgitated the hair and feathers of animals in pellets very similar to those of owls.

The next day after banding the young birds, August 6, an adult Goshawk "shadowed" me as I walked along the trail from the cabin through the forest. Flying from tree-top to tree-top the Goshawk uttered screams of a plaintive nature sounding like *kew kew kew*. This was probably a reaction to the disturbance of our banding activities.

The fourth week, beginning August 12, found three of the young in full juvenal plumage, but the runt remained concealed in the nest. Three of the birds were very active now and took small flights out among tree branches. Their wings were noticeably larger and they practiced maneuvering the long tail. The adults were now kept busy feeding individual young birds. They always greeted the adult with chirps which were totally out of keeping with their large size and ferocious appearance. Two birds sometimes playfully touched beaks. They no longer fought over food but ate one at a time, pulling meat apart and swallowing at the same time. The down on their legs gave the appearance of pantaloons and they acted like clumsy adolescents.

We identified, from remains of their food, a chipmunk and a golden-mantled ground squirrel. Most of their food was small mammals of this type, although a few remains of birds were found. Both Dixon (1938:9) and Ingles (1945:215) found that the food brought to the nestlings of the Goshawk was almost entirely mammals. That part of the food was wasted was indicated by the remains we picked up under the nest-tree. Sprunt (1955:45) found from stomach studies that the Goshawk eats primarily birds, but about 30% was various rodents. In our observations it seemed to be the relative abundance that caused the larger proportion of the prey to be rodents. In Glacier other birds complete their nesting early in the season, largely before the hatching of the Goshawks.

Although a bulky structure over two feet in diameter the nest had been slowly falling apart under the vigorous activities of the Goshawks. We had noted some disintegration of the nest on August 5. By August 14 only about 1/3 of the nest remained and only the runt remained in the nest. However, the young birds remained close to the nest-tree. One young bird was perched in a large cottonwood across the creek. All were calling with a loud, clear "peeping" call as they did when food was brought, in contrast to the urgent piercing call when hungry. Later the young Goshawk perched in the tree clutching a chipmunk in its talons.

On the morning of August 15 the nest had fallen apart completely and we found sections of it on the ground. The young birds were perched on and near the nest-tree.

After this the adult Goshawks fed the young by coming in rapidly to the nest-tree and dropping the dead prey, usually chipmunks. This occurred at low heights in the tree and the juveniles had to catch the falling prey, and often fought over it. This may be a method of teaching the young how to catch prey. If the prey was not caught by the juvenile hawks

it was never retrieved by the adults. The runt remained at the nest-site calling endlessly for food. The runt could not compete for food with the others with this type of feeding since it was small and had a defective leg.

On August 19 the runt of the nest flew down on the roof of the cabin several times and then would return to the nest-tree. About noon it was hanging upside down from a branch and then fell to the ground with its eyes closed. In a few minutes it was dead, probably from starvation.

For the next week we heard the birds calling nearby in the forest but they no longer returned to the nest-tree. The young birds had full juvenal plumage and resembled the adults except for down on the belly. Then we did not hear the birds after August 24 when the three juveniles were seen together calling excitedly as they did when one bird had food.

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