

An index of abundance of the Goshawk in Colorado in winter.—At the base of the foothills of the Front Range near Colorado Springs the Goshawk (*Accipiter gentilis*) is secretive and seldom seen. However, Knorr (*The birds of El Paso county*, Univ. of Colorado Press, 1959.) stated that three Goshawks had been trapped in two weeks of December, 1948, and that perhaps the species is more numerous than supposed.

In order to estimate the abundance of the Goshawk in winter, we operated a series of traps from 14 November 1963 to 14 April 1964. The number of traps varied from six to eight; all were dispersed along a 1,000-meter section of a jeep trail traversing an area including mixed grama grass (*Bouteloua* sp.), mountain mahogany (*Cercocarpus montanus*), and Gambel's oak (*Quercus gambeli*), and an area of mixed ponderosa pine (*Pinus ponderosa*) and Douglas fir (*Pseudotsuga taxifolia*). Cottontail rabbits (*Sylvilagus* sp.), a prey species of the Goshawk, were conspicuous in the area. Although traps were not operated daily, they were set frequently enough to give regular coverage through the duration of the study. Bal-chatri traps (see D. D. Berger and H. C. Mueller, *Bird-Banding*, 30: 18–26, 1959) baited with Rock Doves (*Columba livia*) were used from 14 November to 2 December (109 trap days), but were discontinued when two Goshawks became entangled and died. This type of trap should be attended at least every two hours, especially in cold weather. Subsequently, automatic bow-net traps (see H. B. Tordoff, *J. Wildl. Mgmt.*, 18: 281–284, 1954), baited with Rock Doves, were employed (300 trap days) and may be more effective than bal-chatri traps. Results are shown in Table 1.

The data in Table 1 suggest that this species is actually quite common in fall in the area studied. No Goshawks were trapped after 4 February and apparently the species was not present during the rest of the winter. Of the 13 caught, 11 were uninjured and were banded and released. One male was recaptured within one week; an immature female was recaptured twice within two weeks. Seemingly, banded Goshawks did not remain long in the trapping area and we suspect that those in the foothills are autumn transients. If so, the route of spring movement remains a mystery. Of these Goshawks, 11 were adults and 2 were immatures; the latter number seemed low to us. In some cases we were not sure of the sex of individuals. One bird, undoubtedly a female, weighed 1,325 g, well above the average for females (1,095 g) given by Craighead and Craighead (*Hawks, owls, and wildlife*, Harrisburg, Pennsylvania, Stackpole Co., 1956). The other 12 birds varied from 715 g to 975 g and averaged 829 g, below the Craigheads' average of 860 g for males. Certainly most of these were males.

TABLE 1
GOSHAWKS TAKEN IN TRAPS SET 14 NOVEMBER THROUGH 14 APRIL

Month	Goshawks caught	Trap days	Trap days/ Goshawk	Goshawks/ trap day
November	5	96	19.2	.052
December	5	64	12.8	.078
January	2	84	42.0	.024
February	1*	78	78.0	.013
March	—	60	—	.000
April	—	24	—	.000
Totals	13	406	—	—

* February 4.

Occasionally traps were found disturbed but empty. Sometimes animals of other species were caught, including two Cooper's Hawks (*Accipiter cooperii*), one Red-tailed Hawk (*Buteo jamaicensis*), one Golden Eagle (*Aquila chrysaetos*), one Great Horned Owl (*Bubo virginianus*), two Steller's Jays (*Cyanocitta stelleri*), one Scrub Jay (*Aphelocoma coerulescens*), and two [!] bobcats (*Lynx rufus*).—PHILLIP D. DOERR AND JAMES H. ENDERSON, *Department of Zoology, Colorado College, Colorado Springs, Colorado*.

Roosting behavior of the Blue Jay.—Between 13 and 22 January 1963 I had the opportunity to observe the roosting behavior of several Blue Jays (*Cyanocitta cristata*). My front yard at Silver Spring, Maryland, has numerous small oak trees and seedlings which keep their withered leaves until spring. Sheltered among these leaves two to five Blue Jays spent each of the above afternoons and nights.

The birds arrived at their roosts daily between 1250 and 1259, more than four hours before official sunset. Unless frightened away they remained in place until a few minutes before the official sunrise time the following morning. (In these 10 days, according to the Washington, D. C. Weather Bureau, the sunrise time advanced from 0726 to 0722, and the sunset time from 1708 to 1718.)

The branches used as perches ranged 4 to 20 feet from the ground. During the daylight hours the birds sat in place with their eyes open but their heads sunk down onto their shoulders. I was able to walk to within 6 feet of them before they flew into the woods not to return the same day. Automobiles using the driveway 4 feet from two of the roosting birds and directly underneath another failed to alarm them; so also did three dogs playing within 10 feet of a bird just 4 feet off the ground.

For the first 20 minutes or less that the birds were at their roosts there was some competition for preferred positions. Once, three minutes after arrival one jay aroused when it saw something on the ground, flew down, ate it, and then resumed the perch and resting position immediately. Bread thrown near at 1600, however, did not attract them.

There was no snow on the ground during this period, and the daytime temperatures were in the 30's (degrees F). Only once did the weather vary. On that day the temperature climbed to 55° F in the afternoon and the birds did not arrive at their roosts until 1313. This long roosting period allowed these birds less than six hours daily to find adequate food during a winter month.—CYNTHIA GALE TURNER, 12524 *Two Farm Drive, Silver Spring, Maryland*.

Frog captures a fledgling Eastern Phoebe.—On 12 May 1963 I discovered the nest of an Eastern Phoebe (*Sayornis phoebe*) under a bridge at the south end of Lone Star Lake, Douglas County, Kansas. Upon my approach, the sole occupant, a young phoebe, flew from the nest. It was incapable of sustained flight, however, and it dropped into the water under the bridge. It then attempted to reach the bank, propelling itself quite successfully with flight-like movements of the wings. It probably would have succeeded in this attempt except that a bullfrog (*Rana catesbeiana*) attracted no doubt by the disturbance caused by the efforts of the phoebe, pursued and captured the bird in its mouth. A struggle ensued during which the phoebe was evidently drowned. The frog then swam to the ground on which I was standing and, when I made a quick movement toward it, jumped back into the water and disappeared. It retained the limp body of the phoebe in its jaws in both of these maneuvers.

I was unable to find any account of frogs preying on any species of the genus *Sayornis* in the literature. A. C. Bent (*U. S. Natl. Mus., Bull.* 179: 151–152, 163,