

Notes on the Breeding of Northern Finches in North Carolina

MICHAEL H. TOVE, *Editor*

The following four field notes and one letter constitute a minisymposium on the topic "Northern Finches Breed in Western North Carolina." Specifically, they deal with Pine Siskins (*Carduelis pinus*) and Red Crossbills (*Loxia curvirostra*). Both species have long been recognized as occurring in summer and probably breeding in North Carolina (Brewster 1886, Cairns 1889, Simpson and Simpson 1983, Potter et al. 1980). Haggerty's (1982) discovery of nesting Red Crossbills constituted the first documented evidence of breeding for that species in the state. Apart from that record, no other direct evidence has come to light prior to the present publication.

Because of the irruptive nature of populations of both species in their northern ranges, caution must be exercised when drawing conclusions about their reproductive status in North Carolina. Moreover, I feel compelled to admonish that no amount of circumstantial evidence of breeding will replace the direct observation of an active nest with eggs or young, or the observation of parents feeding fledglings incapable of sustained flight. This is particularly true for the Pine Siskin, which attains reproductive condition prior to reaching the breeding grounds (Yunick 1981). In spite of these precautions, carefully assessed indirect evidence can provide valuable insights in the absence of better data.

In the interest of simplicity, I have elected to combine all the literature citations into a single section that follows the last contribution.

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Possible Effects of Artificial Feeding on Nest-site Selection by Pine Siskins

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Efforts to confirm breeding of the Pine Siskin (*Carduelis pinus*) in North Carolina have historically been concentrated in the high elevations where preferred spruce-fir forest habitats predominate. In this paper, we report evidence that nesting may occur in the lower elevations, particularly in proximity to artificial feeding stations.

During the spring and summer of 1986, we observed behaviors of siskins at our feeder that suggest local breeding. In April and May, several pairs of birds were observed chasing each other as if engaged in courtship. About one month later, adults were twice seen gleaning small insects from the undersides of oak leaves. Palmer (1968) reported that insectivory by siskins occurred when nestlings were being fed. Beginning 6 June, our observations of birds at feeders included immatures. These individuals appeared ignorant of how to open the sunflower

seeds and were not observed feeding. While it is tempting to assume they were recently fledged, the lack of begging behavior and free-flying capabilities warrant caution. When the birds departed the area, they did so rather abruptly. Although Palmer indicated that this behavior is consistent with breeding populations, to draw conclusions from the observation is risky.

In addition to these observations, we have records of extralimital breeding by Pine Siskins near feeders at our home on Staten Island, New York (Siebenheller and Siebenheller 1976). In 1976, 1978, and 1982 we observed young birds begging food from adults while visiting our feeder. In 1982, we located an active nest about ¼ mile from our home. We believe that the birds we observed relied heavily on the "endless" supply of food at our feeder, which may have provided impetus for them to remain to breed.

In conclusion, we feel that the presence of well-maintained feeding stations into summer may encourage Pine Siskins to breed nearby. As Messineo (1985) has indicated, siskins are early breeders (there are March egg dates from New York). Thus, Pine Siskins that remain at a feeder well into spring constitute potential breeders. For this reason, we urge observers to monitor late birds for signs of nesting and hope that this will lead to the discovery of an active nest.

19 Grouse Lane, Brevard, N.C. 28712

Preflight Pine Siskin at Asheville, N.C.

NORMA K. WILLIAMS

The following two paragraphs, taken from a letter to Eloise F. Potter dated 7 June 1982, support the Siebenhellers' evidence of Pine Siskins' breeding near artificial feeding stations at relatively low elevations in the North Carolina mountains. The original letter is on file at the North Carolina State Museum of Natural Sciences.

"I have many bird feeders around [my house in Asheville, Buncombe County, N.C.], and this winter we were inundated by a large flock of Pine Siskins. Since they were so ill-mannered around the feeders, I looked forward to their return north, around early May. Many of them did leave, but quite a few are still here.

"Today while sitting on the front porch, I saw a baby Pine Siskin under the shrubbery. It cannot yet fly, but it is undoubtedly a Pine Siskin. . . . I held this bird in my hand long enough to identify it."

The elevation of Asheville is about 680 m (2220 feet).

34 Stockwood Lane, Asheville, N.C. 28803

Possible Nesting of Pine Siskins at Southern Pines, N.C., in 1982

LIBBA WATSON and JOHN WATSON

During the winter of 1981-1982, a number of Pine Siskins visited our sunflower-seed feeder throughout the season. After the majority left in the spring, we continued to see one bird at a time taking sunflower seeds in May and on into

June. Our identification of the species was confirmed by Jay Carter, who saw one Pine Siskin at our feeder in June 1982.

At 0700 on the morning of 18 June, three siskins were seen together. One was at the feeder, and the other two were on two air-conditioning units about 15 feet from the feeder, one bird on each unit. This was unusual behavior, as we had never seen a siskin on the air-conditioning units before. We concluded that they must be immatures, although we saw no other behavior to suggest this idea. On the 19th and 20th, one siskin was noticed at the feeder each day. At 1645 on the 21st, there were two siskins at the feeder. That was the last time they were seen.

Evidence of possible nesting by Pine Siskins in the North Carolina Sandhills supports the statements of the Siebenhellers regarding the effect of feeding stations on extralimital breeding activity.

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The Red Crossbill in Western North Carolina: A Review of Records Indicating Breeding

DAN K. ROSENBERG

The nomadic nature and erratic breeding of the Red Crossbill (*Loxia curvirostra*) make it a difficult species to study. Although the literature contains numerous reports of breeding-season observations from North Carolina, there are only two confirmed breeding records (Haggerty 1982; Simpson, see below). This paper is designed to present a review of reports in which breeding was suspected. My objective is to demonstrate that in spite of minimal direct evidence, there is every reason to suspect breeding from a wide geographic range in the mountains.

Curtis's 1854 observation of the Red Crossbill appears to be the first record from western North Carolina. In September 1854, he found the Red Crossbill to be fairly common in the spruce forests of the Black Mountains (Simpson and Simpson 1983).

Brewster (1886), Sennet (1887), and Cairns (1889) reported the species from the mountains of North Carolina in summer. Examination of the literature reveals subsequent breeding-season reports from at least eight counties in western North Carolina (Table 1). In addition to these data, I have personal observations from field trips made during June and September 1984.

On 20 and 21 June 1984, Jeff Groth and I collected seven Red Crossbills near the summit of Roan Mountain. The first day produced four birds (3 females, 1 male), all of which were juveniles approximately 10 weeks old. The next day a subadult female was taken alone, and later an adult male and a subadult female were taken together. One juvenile female was distinctive in being larger and larger-billed than the other six birds. The seven specimens were deposited in the Museum of Vertebrate Zoology, University of California, Berkeley.

During an excursion to the Linville Gorge Wilderness Area, Avery County, N.C., from 4 to 8 September 1984, I observed several flocks of Red Crossbills. A flock of four birds, including at least two juveniles, was seen at the Babal Towers section. A flock of three birds was seen in the same area shortly thereafter. A flock

of five birds was in a clearcut with several mature White Pines (*Pinus strobus*) that had a large cone crop. Although each flock of Red Crossbills was seen independently, the numerous vocalizations heard throughout the trip indicated a fairly large population.

The large numbers of birds reported, their widespread distribution during summer, and the presence of juveniles in late summer strongly suggest that, in spite of the paucity of direct evidence, the Red Crossbill is a breeding species in suitable habitat throughout the mountains of western North Carolina.

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Red Crossbills Nesting at Linville Gorge, Burke County, N.C.

MARCUS B. SIMPSON JR.

The Red Crossbill (*Loxia curvirostra*) is an erratic resident of North Carolina. Although there are numerous summer records of the species, there is but a single documented nesting record for the state (Haggerty 1982). The present report describes what appears to be the second confirmed nesting by the species in North Carolina.

On 21 June 1986 I noted several pairs of Red Crossbills in mixed deciduous-coniferous woodlands around Wiseman's View, at elevations of 1030 to 1060 m (3400-3500 feet), along the western ridge of Linville Gorge, Burke County, N.C. Returning to the area on 12 July, I discovered an adult male and female carrying nesting material to a partially completed nest situated on the limb of a Table Mountain Pine (*Pinus pungens*) 3 m from the trunk and 6 m above the ground. The site was about 1 km SW of Wiseman's View at an elevation of 1006 m (3320 feet) on the south slope of Green Mountain along the main western ridge of Linville Gorge at the boundary between Burke and McDowell Counties. I observed the birds for several hours on 12 and 13 July. Both sexes carried pine needles and small twigs to the structure at intervals of 2 to 10 minutes. The female frequently positioned herself in the nest, apparently sizing the structure.

I again visited the site at 1100 on 3 August and watched the female occupying the nest without interruption for a period of about 1 hour. The lengthy period spent on the nest strongly suggested that she was incubating. The male was heard singing occasionally, but was not seen.

My final visit to the nest was at 1700 on the afternoon of 17 August. Both adults repeatedly carried food to a single nestling, whose head was clearly visible above the rim of the nest whenever the adults approached.

TABLE 1. A summary of observations of Red Crossbills from western North Carolina in which breeding was suspected or documented.

Location	No. Birds	Elevation	Dates	Source
Highlands, Macon Co.	pair, female gathering twigs	1160 m (3800 ft)	July-Aug. 1963	Johnston (1963)
Great Smoky Mountains, Swain Co.	"fairly common"	above 1525 m (5000 ft)	Summer	Stupka (1963)
	1 pair with 3 juveniles	1540 m (5050 ft)	14 June 1965	Swindell (1974)
Shining Rock, Haywood Co.	1 pair nest building	1750 m (5740 ft)	13 June 1970	Simpson (1974)
Black Mountains, Buncombe Co.	"numerous"	above 1675 m (5500 ft)	permanent residents 1883-1889	Cairns (1889)
Mt. Mitchell, Yancey Co.	30 birds incl. juveniles	1585 m (5200 ft)	6 June 1930	Burleigh (1941)
Roan Mtn., Mitchell Co.	"adults carrying food"	?	July 1974	Eller (1975)
	7 birds incl. 4 juveniles	1890 m. (6200 ft)	20-21 June 1984	Rosenberg (pers. obs.)
Linville Gorge Wilderness Area, Avery Co.	several flocks incl. 2+ juveniles	?	4-8 Sept. 1984	Rosenberg pers. obs.
Linville Gorge, Burke Co.	1 pair with 1 nestling	1006 m (3320 ft)	12 July- 17 Aug. 1986	Simpson (see below)
Boone, Watauga Co.	active nest	?	5 Sept.-13 Oct. 1981	Haggerty (1982)

Although successful nesting by Red Crossbills has now been confirmed at two localities and indirect evidence of breeding in North Carolina is fairly abundant, observers should continue to document the breeding of this species in the Carolinas.

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