Newfound Gap. It was early afternoon when we sat down on the stone wall at the Newfound Gap parking area (on the old road across the mountain) at the North Carolina end of the wall. We had been there only a few minutes when we saw a Red Crossbill alight on the bank (a road-cut) across the road from us. It collected food and flew into the evergreen tree almost over our heads. On a limb sat two fledgling birds, side by side. On another limb in the same tree, but at some distance, was another fledgling. All three fledglings were fed by the parents, and at no time while we watched, did the young ones fly. The mandibles of the young were not crossed. We reluctantly left the area after searching for the nest and observing the birds for about half an hour.

## Red Crossbill Observations in Western North Carolina

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The Red Crossbill (Loxia curvirostra) is an uncommon to rare erratic resident through much of the southern Appalachian mountains. The majority of records have come from the Great Smoky Mountains (Stupka, 1963), and observations from other locales are infrequent. The paucity of breeding evidence and the infrequency of large concentrations make the following records significant.

## SHINING ROCK LEDGE (Haywood County, N.C.)

On 13 June 1970, I spent 2 hours watching a pair of Red Crossbills as they constructed a nest in a 30-foot red spruce (*Picea rubens*) at Shining Spring (elevation 5,740 feet) just S of Shining Rock Gap. During most of the period, the male perched near the top of the spruce and uttered various call notes and songs, while the female carried small twigs to the loosely formed nest, which was located 12 feet from the ground in the mid-canopy of the tree. Whenever I approached the nest, both birds quickly became agitated and gave alarm notes repeatedly. The nest was apparently still in the construction stage, and no eggs or young were found. After leaving the site, I saw flocks of 15 to 20 crossbills at Ivestor Gap (5,700 feet) and at Shining Rock (6,000 feet). Much to my regret, I was unable to return to this isolated locale at a later date to determine whether the breeding had continued.

Stupka (1963) and Johnston (1963) have reported evidence for breeding by the Red Crossbill in the southern Appalachians. Stupka's records were of adult birds feeding young with uncrossed mandibles, while Johnston's observations were of adults carrying nesting material. In neither instance, however, was a nest actually found. Although no eggs or young were present in the nest which I found under construction at Shining Rock, the record does give additional evidence that the Red Crossbill breeds in the southern Appalachian mountains.

## BLACK MOUNTAINS (Buncombe and Yancey Counties, N.C.)

Outside the Great Smoky Mountains, Red Crossbills have been reported most frequently in the Black Mountains, although the species is rather erratic and published records are few (Simpson, 1972). During the autumn of 1969, however, large flocks were present at five widely separated locales through the range, where the birds were found in forests of red spruce and Fraser fir (Abies fraseri). In most cases, the flocks were mixed, consisting of adult males, adult females, and heavily streaked juveniles.

The first records were on 7 September at Blackstock Knob (5,600 feet) along the Blue Ridge Parkway, where I saw a small flock of five birds. My subsequent records at this spot included 50 crossbills on 13 September, 10 on 18 October, and 25 on 28 November. At Mt. Hallback (6,200 feet) 12 crossbills were present on 18 October. At

the observation tower on Mt. Mitchell (6,684 feet) I saw 20 on 18 October; and a flock of over 75 was present on 28 November. The largest concentration, however, was at Steepes Gap (6,100 feet) near the Mt. Mitchell State Park Office building, where I counted over 100 crossbills on 18 October. John R. Wilson (pers. com.) informed me that this flock, often numbering over 150 birds, was seen daily at Steepes Gap from early October until the first heavy snow in early December 1969. Wilson subsequently informed me that flocks of 50 to 75 crossbills appeared in September 1970 and again remained until a heavy snow near the end of November 1970. Wilson reported that the flocks seen in 1969 and 1970 were unusually large, although the pattern of occurrence was typical of other years, with the birds first appearing between July and September and steadily increasing in numbers until the first heavy snows around late November or early December, when the flocks rapidly disappeared.

Stupka's (1963) summary of crossbill records from the Great Smokies indicates that flocks in excess of 100 birds are most ususual, with the majority of reports consisting of no more than 60 birds. The flock of 100 to 150 crossbills at Steepes Gap in the Black Mountains represents an exceptionally large concentration of the birds, which were seen daily for a period of some 6 weeks. The relatively mild weather and large seed crops in 1969 may have contributed to the size of these flocks.

PISGAH RIDGE MOUNTAINS (Transylvania, Haywood, and Henderson Counties, N.C.)

To my knowledge, there are no published records of Red Crossbills from this range, despite the presence of apparently suitable habitat. Don R. McLeod (pers. com.) reported a pair of adult crossbills at Devil's Courthouse (5,700 feet) in June 1959, although he was unable to find any evidence of nesting. On 14 February 1970, I saw a flock of 25 in flight at nearby Silvermine Bald (5,800 feet); while on 15 May 1970, 5 were at Fork Mountain Tunnel (4,900 feet), 30 were at Little Pisgah Ridge Tunnel (4,800 feet), and 25 were at Mt. Pisgah (5,200 feet). On 6 June 1970, a pair of adults was seen at the Pisgah Campground along the Blue Ridge Parkway (4,900 feet); but I could find no evidence of nesting.

In the Great Smokies, Stupka (1963) reports that Red Crossbills are at their lowest numbers during the month of May, making these Pisgah Ridge sightings unusual with respect to the time of year.

On subsequent visits to Shining Rock Ledge, the Black Mountains, and Pisgah Ridge during 1971 and 1972, I saw no Red Crossbills in any of these locales, a fact which reinforces the statement that this species should be designated as an *erratic* resident through most of the southern Appalachian mountains.

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