

Absences ranged from 0.5 to 28 minutes, averaging 5 minutes. Nine times the female left the nest in response to the arrival of her mate with food; 13 times she left independently. The male fed his mate on or near the nest about once in 23 minutes. The food was largely insects. A single impaled English Sparrow (*Passer domesticus*) was found near the nest tree.

The nest was "defended" from other species that came near about once in 20 minutes. Arkansas and Eastern Kingbirds (*Tyrannus verticalis* and *T. tyrannus*) were driven off 34 times, Bronzed Grackles (*Quiscalus quiscula aeneus*) 5, Brown Thrashers (*Toxostoma rufum*) 3, Baltimore Orioles (*Icterus galbula*) 2, and Mourning Doves (*Zenaidura macroura*), Redwings (*Agelaius phoeniceus*) and English Sparrows once each. The Kingbirds' pugnacity and persistence earned them more than their share of attention. Upon a number of occasions Kingbirds even put one or the other of the Shrikes to flight. On May 22 and 25 hostilities were unusually bitter. Bronzed Grackles were quickly and easily repulsed. The 2 or 3 Brown Thrashers continued to feed near the nest tree in spite of attacks. Grackles and Redwings were the most quickly attacked species.

The nest tree was near the northern boundary of the territory so that scarcely a third of the shelter belt in which the tree stood was of interest to the birds. I observed no conflict whatever with a neighboring pair of Shrikes nesting about one half mile south. The territory, mostly grass land and open field, was estimated to be from 20 to 30 acres in extent.—ARCHIBALD JOHNSON, *Jamestown, North Dakota*.

Prothonotary Warbler in Chester County, Pennsylvania.—Early on the morning of May 12, 1936 while making my rounds I heard an unmistakably new warbler song issuing from a sycamore and then from a willow tree in a small swamp near my home in Berwyn. The song was short and very loud. There proved to be three Prothonotary Warblers (*Protonotaria citrea*), two males and one female, all of which I had ample time to identify while the singing male chased the second male from place to place. This species had heretofore eluded me but now brings to 35 the list of warblers I have observed here.—FRANK L. BURNS, *Berwyn, Pennsylvania*.

Red Crossbills Summering in the West Virginia Mountains.—During July and August, 1939, considerable numbers of Red Crossbills (*Loxia curvirostra*) were observed by a number of persons in the Cheat Mountain range in Randolph and Pocahontas counties, West Virginia.

The birds were first noted by Brooks on July 14, when a flock of about thirty, containing red males and birds of greenish-yellow coloration, were seen. On July 22, I. B. Boggs, A. S. Margolin, and Brooks saw a flock of twenty-two birds, and a single individual at different times. In the flock of twenty there were red males, yellowish birds, and streaked juveniles. Sutton, Brooks, and others visited the area on July 29, Sutton remaining for the three following days. A single individual was noted by Miss Laura B. Moore on July 29. On July 30, Sutton shot a dull red male, watched it fall into a dense growth of ferns over an embankment, and spent nine hours searching for the bird, without success. He noted Crossbills flying over several times on July 31. The birds were last seen on August 6, when Margolin and Dean Bowers observed striped juveniles. On subsequent visits by Brooks, Karl Haller, and others, no Crossbills were seen.

All the local observations on Red Crossbills were centered around Gaudineer Knob, a peak of 4445 feet elevation in that part of the Cheat mountain range known as Shaver's Mountain. The dividing line between Randolph and Pocahontas counties follows the crest of the ridge which contains Gaudineer Knob.

The higher parts of the Cheat range are forested by a dense second growth of red spruce (*Picea rubra*), while a swamp at the foot of Gaudineer Knob has a

considerable growth of fir (*Abies sp.*). Near the top of Gaudineer, on a very steep slope, is a small stand of virgin spruce, a part of the locally famous Hamilton "wedge." Here the spruces tower to a hundred feet or more, and it was in the tops of these trees that the Crossbills found the cones on which they fed. In addition to the height of the trees and the steepness of the slopes, a further hindrance to collecting is offered by the dense undergrowth, masses of rhododendron, stunted spruces, and tall ferns in the slight openings.

Since no specimens were secured, it was, of course, impossible to determine the race or races of the Crossbills which we saw. Our purpose in publishing this rather indeterminate record is to call attention to three interesting possibilities which may account for the presence of the birds in the region, a territory in which they have not been previously noted.

1. The birds may have been part of a population nesting somewhere to the north or west.

2. They may have been stragglers from the more or less permanent Red Crossbill population in the mountains of eastern Tennessee.

3. They may have been part of a previously undiscovered permanent population in the Cheat mountains region.

As for the first of these possibilities, it seems unlikely that wanderers from more northern points would have concentrated here without being noted in other regions outside the normal range of the species. If such observations have been made, we have not learned of them.

Consideration must be given to the second possibility. Mr. Arthur Stupka, Park Naturalist of Great Smoky Mountains National Park, (in correspondence) states that during the six months prior to April, 1938, Red Crossbills were plentiful in the spruce-fir zone of that mountain region. He believes that the species bred there during the late winter of 1938. This period corresponded with a particularly heavy cone crop on the evergreens. Since that period, however, the birds have become scarce and scattered, following lighter crops of cones on the spruces and firs. It seems entirely possible that the Crossbills, finding food scarce in Tennessee, moved the few hundred miles north into the West Virginia mountains.

The third possibility is, perhaps, the most plausible of all. The Cheat mountain area is a vast expanse of high country, sixty to seventy miles in length, and eight to ten miles in breadth. All of it lies above 3,000 feet elevation, and there are numerous points above 4,000 feet and up to 4,800. Practically all the higher portions, and many of the lower, are clothed with a dense growth of red spruce, most of it of a size to produce cones.

Only three roads traverse this range in fifty miles of its extent and there are many high peaks which are seldom if ever visited by scientists or field observers. In fact, only within the last few years has the Gaudineer area been made accessible through the construction of a U. S. Forest Service road. It is entirely credible that a small permanent Crossbill population has been overlooked within this wilderness expanse. The presence of streaked juveniles lends support to the idea that the birds may have bred close by. It was impossible to determine whether any of the juveniles had uncrossed mandibles, a point which Griscom (*Proc. Boston Soc. Nat. Hist.*, 41, 1937:114) considers *prima facie* evidence of local breeding.—MAURICE BROOKS, *Division of Forestry, West Virginia University, Morgantown, West Virginia*, and GEORGE MIKSCHE SUTTON, *Department of Zoology, Cornell University, Ithaca, New York*.

Upland Plover—a Correction

On page 217 of the December, 1939 *Wilson Bulletin* we made the statement that "Forbush (1912) reports the Upland Plover feeding extensively on crowberries (*Empetrum nigrum*) while in Labrador." This is a misquotation. The statement refers to the Golden Plover.—Irven O. Buss, Madison, Wisconsin.