

In 1972, Mountain Bluebirds were first observed at the refuge on 11 March. On 31 May, a pair was observed carrying food, largely insects, to a nest hole about four meters up in a dead aspen (*Populus tremuloides*). On 5 June we spent several hours observing and photographing the pair in such activity. On 22 June, adults were seen in the vicinity and we inspected the nest, but the young were gone. This hole was not occupied in 1973.

In 1973, bluebirds were first observed at the refuge on 13 March. A nest hole about three meters up in a dead aspen was found on 27 May, in a heavily wooded area about two miles from the 1972 nest site. The pair of bluebirds was observed carrying insects to the hole at about five minute intervals. On 31 May, we saw four well-feathered young in the nest. On 3 June the adults were still feeding the young in the nest.

A check of refuge records revealed initial spring sightings of Mountain Bluebirds on 27 March 1971, 21 March 1970, and 23 March 1969. Prior to 1969 no detailed records were kept on songbirds, but occasional sightings go back to 1936, when the refuge was established. Mountain Bluebirds have been nesting on the refuge since at least 1972 and probably earlier. These data thus extend the known breeding range of this species some 150 miles farther east than previously reported, i.e. from western South Dakota (Visher, *Wilson Bull.*, 24:1-6, 1912).

We wish to thank Dr. Harrison Tordoff and Joseph Wunderle, Jr., who read the manuscript.—HENRY KERMOTT, *Department of Ecology and Behavioral Biology, Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota 55455*; ROBERT FIELDS and ALAN TROUT, *Bureau of Sport Fisheries and Wildlife, J. Clark Salyer National Wildlife Refuge, Upham, North Dakota 58789. Accepted 23 October 1973.*

Unusual crepuscular blackbird movements.—At approximately 18:30 on 28 and 29 February 1972, we observed long flight lines of blackbirds, mainly Red-winged Blackbirds (*Agelaius phoeniceus*), leave a long-established winter roost at Milledgeville, Baldwin County, Georgia, and fly out of sight in a northwesterly direction. An estimated 3,000 birds were seen leaving the first evening and 5,000 the second night. On both nights, the birds had arrived at the roost within the previous hour, sunset was at 18:32, there was virtually no wind, the sky was clear, and a full moon had already risen when the birds left. There was no other known roost north, northwest, or west of the Milledgeville roost that the birds could have reached before dark. We remained at the roost most of both nights and, to the best of our knowledge, the birds did not return.

Our observations were made as part of a test of bird responses to scaring devices conducted at the Milledgeville roost. The test included the use of one or more devices (i.e. recorded alarm cries, Av-alarm, exploding shotgun shells) once every 15 minutes during 8-hour periods on the nights of 24-26 and 28-29 February. To what degree the scaring activity was connected with the observed exits from the roost on 28 and 29 February is not known. While we were in plain view of the birds as they arrived at and then departed from the roost, we had not yet begun our scaring activities either night. The estimated roost population decreased from 40,000 to 2,500 birds between 24 February and 1 March.

To our knowledge, no other workers have reported concerted movements of this type from a roost at dusk. When roosting blackbirds are harassed at night, they usually will fly out in loose, unorganized masses and will settle down again rapidly in nearby vegetation. This may have been a local movement, but if so it resulted in a shift to a new and unreported roost site.

The possibility exists that the movement may have been the beginning of nocturnal

migration, although no such phenomenon in blackbirds has ever been reported to our knowledge. The birds were headed in the proper direction, and blackbird movements north occur regularly at this time (vanguards of the Red-winged Blackbird migration normally reach northern Ohio about 1 March). Stoddard and Norris (Bird Casualties at a Leon County, Florida TV Tower: An Eleven-year Study, Bull. Tall Timbers Res. Stn. No. 8:90, 1967) report many dead Redwings in the early morning at a TV tower in northern Florida. However, they believe that these birds likely struck the tower and attendant guy wires under crepuscular rather than nocturnal conditions.

We thank Judge Erwin Sibley for allowing our use of the roost on his property for studies and J. S. Webb and W. J. Francis for reviewing this note.—ALLEN R. STICKLEY, JR., *U.S. Bureau of Sport Fisheries and Wildlife, Division of Wildlife Research, Patuxent Wildlife Research Center, Ohio Field Station, P. O. Box 2097, Sandusky, Ohio 44870* and DAVID E. STEFFEN, *129 Collamer Road, Hilton, New York 14468. Accepted 7 September 1973.*

Common Grackles preying on fish.—In June 1973, I observed Common Grackles (*Quiscalus quiscula*) preying on small fish at the spillway of Bluff Lake, Noxubee Wildlife Refuge, Oktibbeha County, Mississippi. Up to 15 birds engaged in the behavior, feeding sporadically and with neither great agility nor awkwardness on small minnows of unidentified species. I observed the activity for two hours on 23 June and four and one half hours on 24 June, while sitting 50 to 150 feet away and using 7× binoculars. On 25 and 27 June I also noted that the birds were feeding at the spillway, which empties from the lake into Oktoc Creek. On these dates water running over the spillway was one to two inches deep, but on 29 June the spillway was dry and no grackles were in it.

When feeding in the spillway, birds would alight on a nearby perch or land directly in the water. Perching birds flew down to the water and caught fish, while those in the water walked around and caught fish that happened to be swept near them. A captured fish was frequently eaten immediately after being caught, either as the bird stood in the water or after it flew to a tree branch or the concrete wall of the spillway. Most of the time the grackles ate fish whole, head first. On some occasions a grackle held a fish with its feet and tore out small pieces to eat.

Some grackles did not eat the fish at the spillway, but left with them in their bills and may have taken them to nests or young. Such birds carried away up to three fish at a time. In one incident, such a bird held the first fish that it caught under its foot while it caught a second one. It then flew away with both fish in its bill.

A young grackle also came to the spillway and was repeatedly fed whole fish by an adult. The young bird made no attempt to catch fish and was very vocal until it was fed. It was quite clumsy with the fish, usually dropping them two or three times before swallowing them.

Common Grackles have previously been reported to eat small fish and feed them to their young. Beal (U.S. Dept. Agri. Biological Survey, Bull. 13, 1900) and Snelling (Auk, 85:560, 1968) report occurrences of fish in gullet and stomach analyses, but it was not known if the fish were taken alive. Beal states that fish were infrequent in nearly 2,500 stomachs.

Snyder (Canadian Field-Naturalist, 42:44, 1928) describes Common Grackles fishing for small minnows in a garden pool in Canada. He presumed the adults were carrying the fish to the young, although he saw no actual feeding taking place. Pellett (Wilson Bull., 38:235, 1926) describes similar behavior by Common Grackles below a dam near