

a minimum of 62 Common Ravens was observed in the air simultaneously. The birds were soaring, sparring with one-another, and performing aerobatics prior to settling eventually into a clump of hemlocks (*Tsuga canadensis*). The high count of 106 ravens was established by photographs taken through a wide angle lens on 18 January 1973. A local resident reported that ravens have roosted in this vicinity in winters of previous years.—VINCENT J. LUCID AND RICHARD N. CONNER, *Division of Forestry and Wildlife Resources, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. Accepted 13 September 1973.*

**Predation on a shrew by an Eastern Bluebird.**—On 23 July 1973, while making observations on the feeding behavior of a nesting pair of Eastern Bluebirds (*Sialia sialis*), near Mio, Oscoda Co., Michigan, the male was seen to capture and ingest a shrew (either *Microsorex hoyi* or probably *Sorex cinereus*). This unusual food item was obtained on a typical "drop" to the ground from a dead tree limb at 18:26. It was taken in the bird's bill to a fallen log where it was killed within 3 or 4 minutes. Subsequent preparation involved beating the prey against branches as the male held the lifeless shrew by its head. Twice the item was dropped, but on both occasions it was retrieved before it reached the ground. The bird changed limbs several times during preparation, appearing restless and seeking broader and more horizontal perches. As is typical for the bluebird the prey was always held and manipulated by the beak, never the feet, until it was finally ingested at 18:41.

During 30 minutes of observations prior to the capture of this food item the male fed his 8-day-old nestlings but once, although he foraged much for himself. After swallowing its prey the bird exhibited slight lethargy; his first trip to the nest with food was not until 18:56. During the 60 minutes following ingestion, 11 trips to the nest were recorded. Capture occurred at a time when insects appeared abundant and weather conditions (72°, sunny, light winds) were favorable.

Although the normal foods consumed by bluebirds are insects and fruits, Flanigan (Wilson Bull., 83:441, 1971) observed a female eating a snake about 8 inches long and Bent (U.S. Natl. Mus., Bull., 196:1949) reports finding a few bones of lizards and tree frogs in the stomachs of Eastern Bluebirds. While some insects consumed by this species are nearly equal in size to the shrew (e.g., Sphingidae adults, Mantidae, and Cicadidae), I could find no record of a bluebird feeding on mammalian prey in the literature. Of several thousand bluebird feedings observed by the author, this was unique and was not noted again during 3 subsequent days of observations on this pair.—BENEDICT C. PIN-KOWSKI, 8540 Hough, Almont, Michigan 48003. Accepted 4 September 1973.

**Mountain Bluebirds nesting in North Dakota.**—Although several specimens of the Mountain Bluebird (*Sialia currucoides*) have been taken in North Dakota, including in the extreme eastern portion, we have been unable to find any previous nesting record for the state. Bent (U.S. Natl. Mus., Bull. 196:286, 1949), on unspecified bases, gives the breeding range there as extending eastward to Fort Union, Arnegard, and Medora, all in extreme western North Dakota (the A.O.U. Checklist [1957] erroneously cites Fort Union as northeastern North Dakota.). On the J. Clark Salyer National Wildlife Refuge, McHenry County, in spring and early summer of 1972 and 1973, we found Mountain Bluebirds moderately common in sandhill-grassland-aspen parkland, habitat typical of the southern one third of the refuge, and found two nests.

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