

## GENERAL NOTES

**A Feeding Habit of the Herring Gull.**—On November 18, 1939, I observed a flock of about 200 Herring Gulls (*Larus argentatus*) in a field in the southwest corner of Milwaukee County, Wisconsin, about ten miles from Lake Michigan. They were eating insects and worms in a newly plowed field and their method of following the plow seemed worthy of note.

Instead of the flock following the plow down the furrow as do grackles and other birds, these Herring Gulls were uniformly distributed the length of the field, which was about forty rods long and half as wide. The farmer was plowing with a two-plow tractor. As he plowed down the west side of the field, the gulls in the furrow on the east side would wait until he came opposite them and then fly across the field and start feeding in the furrows on the west side. Thus as the farmer plowed down the west side of the field a wave of gulls progressed down the field with the tractor. When the tractor reached the end of the field all the gulls were on the west side. As the farmer started up the field on the east side, the wave of gulls flying across the field kept pace with the tractor, so when he reached the other end of the field all the gulls were on the east side.

Thus, although the wave of gulls progressed the length of the field and back again behind the tractor, no one bird ever followed the tractor. Always there were different individuals alighting back of the tractor from that part of the other furrow directly opposite the tractor. In this way the birds all kept the same relative position in the field and each picked up food from a small area of ground. If a gull finished picking up all the food in its area, it did not fly or walk up or down the furrow but waited until the tractor had again passed it on the other side of the field and then flew across and again started to feed in its small area.

Within a short distance there were two other farmers plowing. As far as I could see all conditions on those fields were the same as on the field occupied by the gulls but neither of these two fields had a single gull feeding upon it. There seemed to be no plausible explanation of this unless it was due to the gregarious nature of the Herring Gull.—ALVIN L. THRONE, *State Teachers College, Milwaukee, Wisconsin.*

**Raven in Southwestern Michigan.**—According to W. B. Barrows ("Michigan Bird Life," 1912), the Raven was originally an abundant bird in Michigan. However, its range and numbers decreased. By 1912 the Raven population in the Lower Peninsula was restricted almost entirely to the northern part.

On April 27, 1889, Mr. F. H. Chapin of Kalamazoo, Michigan, found the Ravens nesting in a large swamp in Almena Township, Van Buren County, Michigan. One of the two birds which were near the nest was shot. I have examined the skin of this juvenile bird and the original records of Mr. Chapin, which are now in the University of Michigan Museum of Zoology. In 1892, on Mr. Chapin's last visit to the swamp, he heard one Raven, but could not find any trace of a nest. However, on April 23 of the same year he noted Ravens near the Gun River in southeastern Allegan County.

Since that time the Raven has apparently been very rare or absent from southwestern Michigan. It is probable, however, that a few individuals may have occasionally been present and mistaken for Crows, as were the two birds shot in this part of the state during the last 7 years.

On October 15, 1932, a juvenile Raven was collected by Mr. George F. Raz at Union Pier, New Buffalo Township, Berrien County, Michigan. Mr. Raz states that it regurgitated a pellet which upon examination proved to consist of a mass of feathers, remains of many Coleoptera, and three feet from some passerine birds. This Raven was skinned by a taxidermist and not sexed. The skin is now in the University of Michigan Museum of Zoology.

Mr. Royal Thayer shot a Raven (*Corvus corax* subsp.) on October 16, 1939, on the south shore of Lake Allegan near Allegan, Michigan (Sec. 14, T. 2 N., R. 14 W., Allegan County). It was given to the Swan Creek Wildlife Experiment Station. The size of this bird is as follows: weight, 1000 grams; arc of right wing, 406 mm; arc of left wing, 408 mm; extent, 1230 mm; tarsus, 63.5 mm; and the culmen, 69.5 mm. Each testis measured 4 mm. The bird's plumage and the persistence of its bursa of Fabricius indicated immaturity. An extreme infestation of ectoparasites was evident.—ARNOLD O. HAUGEN, *Michigan Department of Conservation, Swan Creek Wildlife Experiment Station, Allegan, Michigan.*

**The Western Golden-crowned Kinglet in Indiana.**—Recently in examining the considerable series of Golden-crowned Kinglets in the U. S. National Museum I found a male of the western race *Regulus satrapa olivaceus* from the vicinity of Mineral Springs (10 miles west of Michigan City), Porter County, Indiana, taken October 26, 1923, by M. W. Lyon, Jr. The bird was caught in a mouse trap baited with bacon. The specimen attracted attention at once by the brighter green of the dorsal surface as it lay in a series of the eastern race, and on closer examination the more slender bill was evident. The wing measures 55.1 mm. and the tail 40.5 mm. I know of no other records for the central states for this bird, and it can only be considered a casual stray in this locality.—ALEXANDER WETMORE, *U. S. National Museum, Washington, D.C.*

**Migrant Shrike in Michigan in Winter.**—On February 4, 1940, Louis W. Campbell and I found a shrike at the edge of a wooded area on "North Cape," 3 miles southeast of Erie, Michigan. I collected the bird and found it to be *Lanius ludovicianus migrans*, a species not supposed to occur in Michigan in winter. It proved to be an adult male, fat and in good condition in every respect. The bird was nearly black with soot, but when washed it made a handsome specimen, now in the University of Michigan Museum of Zoology.

W. B. Barrows (*Michigan Bird Life*, 1912) does not record the species in Michigan in winter, although B. H. Swales (*Wilson Bull.*, 15, 1903:21) included it in his list of winter birds of Wayne County, saying he had "seen but two; both in late February." Perhaps Barrows suspected these of being early migrants. There is in addition in the University of Michigan collection an apparently unrecorded specimen taken by J. Claire Wood on Dec. 2, 1906, at Grosse Pointe Farms, Wayne County. It also was an adult male. In the future field observers in southern Michigan will not be able to assume that any shrike seen here in winter "must have been" a Northern Shrike.—J. VAN TYNE, *University of Michigan Museum of Zoology, Ann Arbor, Michigan.*

**Incubation Behavior of *Lanius ludovicianus* in North Dakota.**—Additional data gathered at the Shrike nest discussed in an earlier paper (*Wilson Bulletin*, 50, 1938:246-8) may be of interest. This nest, near Jamestown, North Dakota, was begun about May 6, 1937, and the female was first fed by her mate May 10. Beginning May 15 an egg was laid daily through May 20 when the clutch of six was complete. The fourth egg was laid between 7:30 and 9:55 A.M. May 18, and the fifth between 8:15 and 9:25 A.M. the following day.

On May 15, 16 and 19 a bird was found sitting in the nest at 9:30 P.M. (the eggs were warm). At 8:30 P.M. May 17 a bird entered the nest and remained at least until dark, when further watching became impossible.

From May 22 through May 26, 942 minutes were spent watching near the nest. Incubation was abruptly ended May 27 by nest robbers. During this time 767 minutes were spent on the nest by the female, or 81.3 per cent of the time. Incubation periods averaged 23 minutes in length, ranging from 1 to 94 minutes.