

Nashville Warbler breeding in northeastern Illinois.—During observations in an oak-maple-hickory woodland along the Desplaines River, Deerfield Township, Lake County, Illinois, on June 14, 1938, a female Nashville Warbler (*Vermivora r. ruficapilla*) was located in a willow thicket bordering a small stream and was observed carrying food, giving an alarm note repeatedly and occasionally 'feigning injury.' Efforts were made to locate the nest but without success. At the same time, a male Nashville Warbler was heard singing from the trees bordering the semi-swampy area along the stream; it continued to sing throughout the time spent there. On June 17, a Nashville Warbler, probably the female, was seen carrying food near the original location, but did not give any alarm note. Movements in the surrounding shrubbery seemed to indicate that the young were out of the nest, but the difficulty of observation in the thicket prevented the writer from verifying this belief. On that date the male was not heard nor seen, but on the following day, June 18, the song was heard a few times during the morning from the same territory.

The breeding locality in northeastern Illinois was predominantly oak-maple-hickory climax woodland with semi-dense undergrowth, the whole being of a decidedly more mesic character than the usual oak-hickory upland woods found in the Chicago region away from Lake Michigan. However, it was no doubt the combination of this woodland with the stream cutting it and a semi-swampy, sedge-grass area with willow thickets and scattered elms and ashes that attracted the Nashville Warbler. In northern Michigan (June and July, 1938), the writer found this species in spruce and cedar bogs and in sandy woods of aspen, birch, and Norway pine bordering Douglas Lake (Cheboygan County). Literature indicates that the species has a wide tolerance of habitat factors, occupying ecologically developmental and relatively dry as well as climax and moist areas.

The earliest mention of the Nashville Warbler as a summer resident in Illinois is that of Ridgway (1874), who classified it as a "summer resident in the northern portion? transient in other parts" (1: 368, see references below). In 1876, Nelson listed the species as "a rare summer resident" for northeastern Illinois (2: 98). In 1881, Ridgway, removing the symbol of doubt, included the Nashville Warbler in his revised catalogue as a "summer sojourner northward, transient southward" (3: 174). The first account with complete data of its breeding within the State was published by Philo W. Smith, Jr. (4: 44); this account describes a single nest of the Nashville Warbler containing six eggs, found May 12, 1879, at the base of a hazel bush (probably *Corylus americana*) among the shrubs of the same species covering a clearing on an upland hillside. The reader is left in doubt as to whether or not the female was collected; the male was not seen. The last paragraph of Smith's account is most amazing, and the writer is able to quote it through the courtesy of Mr. R. M. Barnes of Lacon, Illinois, who provided a copy of the original article. "We secured 4 sets the same day. Up to the present date, I have secured *twenty* [writer's italics] sets of eggs of this Warbler . . . The average number of eggs in a set is 5; sometimes 4 and even 6 eggs are laid." The only subsequent reference to this record, strangely enough, was located in Butler's 'Birds of Indiana' (7: 1034). Ridgway's most exhaustive work on the birds of Illinois (1889) recognizes the Nashville Warbler as a summer resident in the "extreme northern counties" (6: 128); no mention is made of Smith's record in Fulton County, which is located in west-central Illinois, bordered on the southeast by the Illinois River. Unfortunately, Ridgway's generalizations on the occurrence of certain rather irregular and more or less uncommon species, unaccompanied by specific references, are of little value today. Kumlien and Hollister (1903) give a breeding record for Walworth County, Wisconsin (bordering McHenry

County, Illinois), of a male Nashville Warbler mated with a female Blue-winged Warbler; both birds were taken and eggs found (8: 110-111). They state further: "We have nesting records at different times in Walworth County, at Lake Koshkonong . . .," the latter locality being about 25 miles north of Winnebago County, Illinois. Other publications treating in any manner the distribution of the Nashville Warbler in Illinois quote the above references and give no additional records; the former include the works of Cooke (5, 9), Woodruff (10), Cory (11), Gault (12), and Ford, Sanborn, and Coursen (13). Cory (11: 645) mentions nothing of the breeding of the Nashville Warbler in Illinois, but quotes Kumlien and Hollister (7) on the Walworth County record; the omissions seem to indicate that he did not regard previously published comments on the summer occurrence of this species in Illinois as bona fide breeding records.

The distributional references to the authorities mentioned above are listed as follows:

- (1) Ridgway, R. Catalogue of the birds ascertained to occur in Illinois. Ann. Lyceum Nat. Hist. New York, 10: 364-394, 1874.
- (2) Nelson, E. W. Birds of northeastern Illinois. Bull. Essex Inst., 8: 90-155, 1876.
- (3) Ridgway, R. Revised catalogue of birds ascertained to occur in Illinois. Bull. Illinois State Lab. Nat. Hist., 1: 4: 161-208, 1881.
- (4) Smith, Philo W., Jr. Nesting of the Nashville Warbler in Fulton County, Illinois. Bay State Oologist, 1: 44, 1888.
- (5) Cooke, W. W. Bird migration in the Mississippi Valley. Bull. U. S. Dept. Agric., Div. Econ. Ornith., no. 2, 1888.
- (6) Ridgway, R. Ornithology of Illinois. State Lab. Nat. Hist., Springfield, vol. 1, part 1, 1889.
- (7) Butler, Amos W. Birds of Indiana. 22d Ann. Rept. Indiana Dept. Geol. & Nat. Resources, pp. 515-1188, 1897.
- (8) Kumlien, L., and Hollister, N. Birds of Wisconsin. Bull. Wisconsin Nat. Hist. Soc., n. s., 3: nos. 1, 2, 3, 1903.
- (9) Cooke, W. W. Distribution and migration of North American warblers. U. S. Dept. Agri., Biol. Surv., no. 18, 1904.
- (10) Woodruff, F. M. Birds of the Chicago area. Chicago Acad. Sciences, Nat. Hist. Surv., Bull. 6, 1907.
- (11) Cory, C. B. Birds of Illinois and Wisconsin. Field Museum Publ. no. 131, vol. 9, Chicago, 1909.
- (12) Gault, B. Check-list of the birds of Illinois. Illinois Audubon Soc., 1922.
- (13) Ford, Sanborn and Coursen. Birds of the Chicago region. Prog. Act. Chicago Acad. Sciences, 5: 2-3, 17-80, 1934.

With the exception of that from Fulton County, all records of this species as a summer resident in Illinois are confined to the northeastern portion, these being grouped with the records from southeastern Wisconsin in the Chicago region. As is evident from the above discussion, its occurrence during the breeding season is rare and local, the present breeding record being the first for that region since 1903 and the first for Illinois since at least 1888. Van Tyne's recent 'Check-list of the Birds of Michigan' cites a breeding record for Jackson County, the approximate latitude of which is the same as that of Lake County, Illinois. To verify Smith's Fulton County records, the writer would appreciate any information leading to the location of extant sets of eggs of the Nashville Warbler from Illinois.—FRANK A. PITELKA, *Experimental Zoology Laboratory, Champaign, Illinois.*