

seven to ten days old, the breeding territory becomes common ground and other Killdeers are not molested. In fact, a form of mutual aid exists and the young seem to be pooled. On the approach of danger, the broken-wing action is discarded for vigorous flight and wild alarm calls around the intruder. I once found six nestlings being protected by four adults, which may or may not be the usual practice.

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SOUTHEASTERN LIMITS OF THE SPOTTED SANDPIPER'S BREEDING RANGE

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ACCORDING to the A. O. U. Check-List (1931), the southeastern breeding limits of the Spotted Sandpiper (*Actitis macularia*) are "southern Louisiana, central Alabama, and northern South Carolina." The records on which this statement is based are hazy, however, and some apparently are quite undependable. Furthermore, my own experience in the South (1929-1941) leads me to believe that the species does not breed regularly (if at all) anywhere south of central and eastern Tennessee and western North Carolina.

Inclusion of "central Alabama" in the statement of range is based on Howell's 'Birds of Alabama' (1928). Among the definite dates listed in this work, those which most nearly approach the breeding season are May 25 (at Leighton) and June 1 (on Petit Bois Island). These dates are not abnormally late for the spring migration. I have found late individuals at Birmingham on May 25, 1935; at Florence, May 25, 1941; and at Tuscaloosa, May 28, 1938.

Without citing definite dates, Howell (*op. cit.*) also states that the Spotted Sandpiper has been observed "in the breeding season" in Autauga County, on the Tensaw River (near Stockton), at Stevenson, Seale, and Bayou Labatre, and on Petit Bois Island. By a study of the dates of occurrence of other species recorded by Howell at the same localities, it is possible to determine within a few days the dates during which he visited these localities. The record at Stevenson was made on or about July 15, at Seale about May 22, at Bayou Labatre about May 20, and on the Tensaw River about May 27. The date of the Petit Bois record is mentioned above.

The listing of the Spotted Sandpiper in Autauga County in the breeding season probably rests on L. S. Golsan's manuscript notes, where it is called a "summer resident." Careful reading of these

notes and correspondence with Golsan reveal that he had no definite June records nor breeding evidence for the species.

The Spotted Sandpiper observed at Stevenson (July 15) was undoubtedly an early fall migrant. I have seen it on the same date (in 1935) at Lake Purdy, near Birmingham, but have never found the species anywhere in Alabama between May 28 and July 15.

The only evidence submitted by Howell for the breeding of the Spotted Sandpiper in Alabama is that of Avery (1890-91) who found it "breeding, but not common" at Greensboro. Records of eggs or young are not mentioned.

In the absence of more definite evidence and of records between June 1 and July 15, the breeding of the species in this state must be considered extremely doubtful.

As for Louisiana, Oberholser (1938) states that George E. Beyer (1900) found it breeding near New Orleans and that Robert Butler "reports it breeding in West Feliciana Parish," but he does not give the exact evidence for these records. His own record of one seen at Grand Isle, June 9, 1933, is the latest record for the spring migration listed in this source. The bird seen by Kalmbach at Tallulah, July 6, 1924, probably was an early fall migrant. It is not unusual for several other species of shore birds to remain in the South until early June and return in July, yet these species are not properly classed as summer residents.

George H. Lowery, of Baton Rouge, states in a recent letter: "No Spotted Sandpiper nest has ever been found in Louisiana, so far as I know. The records of breeding by George Beyer and others may well have been merely birds present in June . . . I note that Robert Butler is cited . . . as one of the authorities for the actual nesting of a bird in Louisiana. I question whether he actually found a nest or young."

The breeding of the Spotted Sandpiper in South Carolina is probably based on Loomis's list (1879) from Chester. The only comment he makes is: "Summer, not *very* common." The ambiguous term "summer" is also applied to the "Solitary Tattler" (*Tringa solitaria*), which certainly does not breed there.

Even in North Carolina, only a single breeding record is cited by Pearson, Brimley, and Brimley (1942). These authors quote from the manuscript of T. D. Burleigh the record of young birds only a few days old found near Asheville, June 20, 1932. Burleigh further states: "At no other spot have I observed it in June, although it is quite possible that other pairs may have been overlooked."

In view of the haziness of most of the 'breeding' records cited above, it is altogether unlikely that the Spotted Sandpiper breeds anywhere in Florida. Howell (1932) says that "apparently a few remain all summer, but there is no record of their breeding." The latest date in spring and the earliest in fall are June 4 and July 2, respectively.

H. H. Bailey (1925, 1932) stated that he had taken downy young in Florida. Such a positive and definite statement is difficult to refute. However, Bailey's records of nesting Phoebes, Baltimore Orioles, and Black-billed Cuckoos were not accepted by the A. O. U. Committee in 1931, so it seems best to conclude, until additional evidence is presented to the contrary, that the Spotted Sandpiper does not nest in Florida.

Ganier (1938) speaks of the Spotted Sandpiper as a very rare summer resident in middle Tennessee and fairly common in eastern Tennessee, but apparently the only definite nesting record is that of Lyle and Tyler (1934), at Johnston City, June 10 (? 1934). Clebsch (1943) has rarely seen individuals at Clarksville as late as June 7, and as early as July 4. The nesting of the species there is not unlikely.

It is possible that the Spotted Sandpiper rarely breeds in northern Georgia, although there seems to be no record of its doing so. I could not find the species in June and early July at Highlands, North Carolina, just across the state line from Georgia (Stevenson, 1941). There are no records of its occurrence at Atlanta between May 30 and July 12 (Griffin, 1941). The extremes of migration at Athens are May 31 and July 15 (Burleigh, 1938).

The only valid record for the breeding of the Spotted Sandpiper in the Lower Austral parts of the South appears to be one made by M. G. Vaiden, who has kindly described, in a letter dated January 11, 1943, the full circumstances of this unusual occurrence. The bird was flushed along the shore of Eagle Lake (just north of Vicksburg), Mississippi, on May 24, 1932. Search resulted in the discovery of a nest in a growth of cat-tails within eight feet of the water line. It consisted of a shallow depression in the soil, lined with a few leaves of cat-tail, and contained four eggs. A fifth egg lay on the ground a few feet away. Four of these eggs were infertile. Another Spotted Sandpiper had been flushed 200 yards away before the nest was discovered. A comparison of these eggs with other sets of Spotted Sandpipers' eggs convinced Vaiden of their identity. Other summer records of Spotted Sandpipers were made near Rosedale, also on the Mississippi River, June 3, 1935; June 18, 1937; and June 27, 1938. There was nothing about the actions of these latter birds to indicate that they were nesting.

It is well to add that Vaiden, although presenting very convincing circumstantial evidence of the Spotted Sandpiper's breeding, does not submit this as absolute proof, being well aware of the unusual nature of the occurrence. This fact adds to the likelihood that the record is valid, although it should probably be regarded as a casual one.

SUMMARY

The evidence presented above suggests that the breeding range of the Spotted Sandpiper does not include southern Louisiana and northern South Carolina and that it certainly does not extend south to central Alabama. Furthermore, in these states and in Florida there are no published records of its occurrence between June 9 and July 2. There are, however, two Mississippi records falling between these dates. These were made along the Mississippi River north of Vicksburg. Another record in this region probably represents breeding.

Until more definite breeding evidence is presented for South Carolina, Georgia, and the Gulf States, the southeastern breeding limits of this species should be described as "middle (?) and eastern Tennessee and western North Carolina, casually to western Mississippi."

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MIGRATION OF THE RED-HEAD FROM THE
UTAH BREEDING GROUNDS

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THERE are only a few areas in the United States where the Red-head (*Nyroca americana*) still breeds in appreciable numbers and of these remaining areas, the marshes and sloughs of northern Utah are among the most productive. The forces of civilization in this region have been retarded in their rate of encroachment upon the breeding habitat by the vast acreages of submarginal land; by the Federal and State Refuge Systems that have saved important parts of the breeding environment; and finally, by the early realization among the people that the marshes and the birds frequenting them are economic assets. As a consequence, the seed-stock of the Red-head is above the average and thousands of young birds are produced annually.