

Prior to the 1893 storm, little data was gathered and preserved that would now be of much use in determining just what happened to any one species. About the only usable material would be records of breeding abundance and skins of breeding birds. Such material as can be found in the old publications, as contrasted to present knowledge of the breeding range of the Seaside Sparrows of the Georgia and South Carolina coasts, seems to indicate that most of the breeding birds were destroyed, and are now in a period of much greater expansion than at any time within the memory of living bird students.

It is entirely possible that Macgillivray's Seaside Sparrow (*Amospiza m. macgillivrayi*), which was not recognized for so many years, has a somewhat different breeding range, than when described by Audubon, in 1834.

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SOME OBSERVATIONS ON BIRDS IN SOUTHEASTERN OKLAHOMA*

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During the greater part of June, July, and August of 1934, the authors were with the University of Oklahoma Biological Survey Field-Party studying the heavily timbered regions of LeFlore and McCurtain Counties in Southeastern Oklahoma. It was during this time that the following observations were made on the Pileated Woodpecker, *Geophloeus pileatus pileatus*; the Road-Runner, *Geococcyx californicus*; and the Little Blue Heron, *Florida caerulea caerulea*.

We found the Pileated Woodpecker to be rather rare in the central portion of LeFlore County, although several were seen six miles west of Heavener along the Poteau River and a few others fifteen miles southeast of Heavener along Black Fork Creek in the vicinity of Zoe. Farther south, in the vicinity of Smithville, McCurtain County, they were more numerous and sixty miles south of Smithville on Mountain Fork River they were fairly abundant. None of these birds were seen more than one-half mile from the streams, and the greater number of them were observed along the water-courses.

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Nice (1931) reviews the history and present distribution of *C. p. pileatus* in Oklahoma. Crabb (1930) reported the Pileated Woodpecker to be rare in Oklahoma, except in the sparsely settled, timbered regions of the state. Even here he never observed more than four individuals in a full day in the field. He found this species to be very wary and experienced difficulty in determining the sex of individuals observed in the field. We had no trouble in approaching to within a few feet of these birds on several occasions, and it was not uncommon to see ten or fifteen of them in a half-day in the field. Apparently the Pileated Woodpecker is increasing in numbers in southeastern Oklahoma. Our observations lead us to believe that individuals of this species are most abundant in southeastern McCurtain County and decrease in numbers from south to north along the eastern border of the state.

Only a single Road-Runner, *Geococcyx californicus*, was seen during the entire summer. This individual was observed on the road between Tiner and Whitehall schools, six miles east and two miles south of Broken Bow, McCurtain County, in typical pine-oak forest. It was first seen at two o'clock in the afternoon, August 16, as the authors were going into Broken Bow. The bird ran into the undergrowth beside the road and could not be found. Two hours later we again saw the bird in the road and although it ran into the brush we were able to collect it. Unfortunately the skin was destroyed by an opossum that night.

Nice (1931) gives a complete account of the history and present distribution of *G. californicus* in Oklahoma. She reports this species as having been observed in McCurtain County in 1929, but does not mention the locality. To the best of our knowledge, this is the first published account giving the exact location where this bird has been seen in McCurtain County, and it is the second record of this species from the southeastern part of the state. As Mrs. Nice points out, the Chaparral has been steadily working eastward through Oklahoma during the past thirty years, but it would seem that it is not increasing to any great extent along the eastern border of the state. It is not unlikely that the pine-oak forests of eastern Oklahoma will mark the eastern limits of the range of this species, and that these birds will always be of rare occurrence in the area studied by us.

On the other hand, the Little Blue Heron, *Florida caerula caerula*, particularly the immature, white form, was found to be abundant along the larger streams in both LeFlore and McCurtain Counties. They

were present in such numbers that they formed a serious menace to the smaller fish of the area.

Due to the general dryness of the season, all streams were low and many of the smaller ones almost completely dry. Such water as they contained was in isolated pools seldom more than a foot or two deep. As was to be expected, the fish were heavily concentrated in these pools. Daily observation showed that the herons were taking advantage of this fact for several of them would congregate about the edges of the pool and within a few hours there would not be a single small fish left.

This was equally true of the shallower places of the larger streams, where often flocks of twelve to fifteen of these birds were observed fishing. Mrs. Nice (1931, p. 56) in her list of the food of these birds includes what she terms *worthless fish*. Our observations lead us to take exception to the use of this term. In the first place, it is almost impossible to define the term as she employs it. Probably she means the smaller, non-game fishes, but if so she is gravely in error. Many of the minnows form an important source of food for the game fishes, and in addition, the carnivorous species are an important factor in mosquito control. This particularly applies to the top minnows of the genera *Fundulus* and *Gambusia* which are easy prey for fish-eating birds. In an area such as that studied this summer, where malaria is all too prevalent, the smaller fishes are very important from an economic view-point.

It is also obvious that the fry of game fish, which are generally found in shallow water, are eaten in large numbers by herons and other similar birds. In many of the small pools which we observed there were many small bass and sunfish, but they were eaten along with the rest of the smaller fishes. We are certain that the majority of the fishes eaten by the Little Blue Heron can not be termed *worthless fish*.

In calling attention to these food habits, however, we do not mean to imply that the Little Blue Heron should be wantonly slaughtered, but we merely mean to show that much of its food is composed of a group of animals of general economic importance.

LITERATURE CITED

- Crabb, Edward D. 1930. The Woodpeckers of Oklahoma. *Publ. Univ. Okla. Biol. Surv.*, II(3): 105-170.
Nice, Margaret Morse. 1931. The Birds of Oklahoma (Revised edition). *Publ. Univ. Okla. Biol. Surv.*, III(1): 1-224.

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