

years which have elapsed since the type series of *cecaumenorum* was collected, and also for the fact that the series is, in part, composed of juveniles (though listed as "adult" in the original description), I believe the differences far too intangible to recognize by name. It is entirely possible that a more adequate series of *cecaumenorum* will make the naming of the Great Basin birds desirable.

In conclusion I wish to thank Dr. Oberholser for critical notes on the type specimens of Baird's *plumbeus* and Ridgway's *santaritae*, both of which are, as one might assume on geographic grounds, definitely olive-gray dorsally.—A. J. VAN ROSSEM, *San Diego Society of Natural History, San Diego, California.*

**The Ohio House Wren in Maryland.**—On October 27, 1935, I collected an immature female Ohio House Wren (*Troglodytes aëdon baldwini* Oberholser) at Cornfield Harbor, Maryland, near the mouth of the Potomac River. This bird, in full fall plumage, is typical of this recently described race in the distinctly gray tone of both upper and under surfaces. While Dr. Oberholser in his statement of specimens examined<sup>1</sup> included both the District of Columbia and Virginia the present is the first definite record for Maryland, where the race in question should come during migration.—ALEXANDER WETMORE, *U. S. National Museum, Washington, D. C.*

**Short-billed Marsh Wren (*Cistothorus stellaris*) Nesting in September.**—On September 12, 1935, I located seven young Short-billed Marsh Wrens just out of the nest in the Convis Twp. Calhoun Co. marsh fifteen miles east of Battle Creek, Michigan. The young were unable to fly and five of them were easily captured. One of these was kept for a specimen and weighed 7.5 grams.—LAWRENCE H. WALK-INSHAW, *Battle Creek, Michigan.*

**Breeding Behavior of Bluebirds.**—On the morning of March 27, 1935, I first noticed that a pair of Eastern Bluebirds (*Sialia s. sialis*) were paying marked attention to a last year's Downy Woodpecker hole located in a willow tree back of my home in Middleton, Mass. For several days thereafter I observed the pair either in the vicinity of the tree or on the tree itself. It was apparent to me that this was their chosen nesting site. I gave these birds but passing notice, however, as it was a common occurrence for a pair to nest in the vicinity, although usually they had selected a bird house especially provided in a neighboring tree. In fact, it was not until April 8, when I saw the female having difficulty in trying to alight on a nearby telephone wire, that my interest was aroused in their behavior. Securing my binoculars, I readily determined the right leg of the female to be crippled in such a fashion as to give the bird no control over it whatsoever. The tarsus and toes, while of normal appearance, seemed stiff and lifeless and were held in a forward position. The slight breeze that happened to be blowing at the time was of sufficient velocity to continually upset the bird's balance by swaying the wire. The creature continually fluttered its wings in an attempt to right itself.

In spite of this severe handicap, I noted, during the days that followed, that the female Bluebird participated in the usual preliminary nesting routine. It was able to force itself through the small Woodpecker hole, even to bring in such nesting materials as dead grass blades and feathers. Once, while peering out from its nesting hole, the male passed it bits of nesting material. On another occasion I noticed the pair copulating.

Early on the cold, rainy morning of April 13 the harmonious relationship of the

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<sup>1</sup> Ohio Journ. Sci., vol. XXXIV, March, 1934, pp. 90-93.

pair was interrupted by the appearance of another female Bluebird in the vicinity of the nest. I did not see the stranger arrive but found it fighting furiously with the crippled female. Both birds were darting at one another and striking with their bills. Sometimes they clashed in mid-air, sometimes on the willow branches. I did not have to watch them long to realize that the crippled female was on the defensive and suffering as a result of the onslaught. Finally, after five minutes of such warfare, the belligerents suddenly grappled with their bills and feet and fell somewhat heavily into the wet grass where they continued in an even more desperate struggle. When I approached to within three feet, their attention was so occupied that they did not notice me. I saw that the crown of the crippled bird was featherless and bleeding and was being persistently pecked by the opponent. As I bent over the birds the marauding female discovered me. Frightened, it attempted to escape from the other which was blindly though viciously gripping its under plumage and thus holding it down. Eventually I started to pick up the two birds but as soon as I touched both of them they separated hurriedly and flew away in opposite directions. During the entire contest, the male Bluebird, until I approached the females, was perched on the top of the willow tree and seemed absolutely indifferent to the struggle. Afterwards it remained on a nearby telephone wire apparently possessed of the same attitude.

The next day I saw a pair of Bluebirds still at the nesting hole. But my binoculars revealed that the legs of the female were perfectly normal. In the ensuing weeks the pair successfully reared their young in the Woodpecker hole. Thus all evidence seemed to indicate that the crippled female, while normal as far as its nesting abilities were concerned, was unable to overcome its physical handicap in defending itself against an aggressive, wandering, normal female desirous of securing either a nesting site or mate or both.—OLIN SEWALL PETTINGILL, JR., *Middleton, Mass.*

#### **Notes on the Relation of the European Starling to Other Species of Birds.—**

Due to its quarrelsome habits and preference for nesting in holes and cavities the European Starling (*Sturnus v. vulgaris*) often comes into direct conflict with some of our native species of birds, particularly during the breeding season. On account of its omnivorous food habits the Starling may also indirectly affect the welfare of other birds.

Several interesting observations were made by the writer on the Starling's relations with other birds while he was engaged in a study of the distribution, habits, and economic status of the European Starling in Canada during the period 1932-35. Additional notes on this subject have been collected by the writer through personal correspondence and from important publications, particularly that of Kalmbach, 'The European Starling in the United States.'

Mr. M. Robinson, Algonquin Park, Ontario, reports Starlings having evicted two pairs of Arctic Three-toed Woodpeckers which had nested in his vicinity for five years. The Woodpeckers returned the next year, but were driven away again.

Wm. H. Moore, of Scotch Lake, New Brunswick, writes, "Some people covered their Martin houses with sacking to keep the Starlings out until the other birds were ready for nesting and in passing through Centreville County, several Starlings were observed sitting in trees adjacent to the blanketed Martin houses."

Wallace Havelock Robb, Kingston, Ontario, reports Starlings as plucking out the eyes of adult Robins with which they were feeding.

In June 1934 a Bluebird's nest was located by the writer in a telephone pole. The female bird was found dead on the nest, her head badly pecked and with all the eggs broken. The male bird was still in the vicinity. From this same cavity a Star-