

to date. Because our observation suggests that nestling birds have long been preyed upon by native fire ants, care must be exercised in evaluating fire ant predation reports so that overemphasis on the effects of predation by imported fire ants does not result from confusion with predation by native fire ants.

We thank Drs. D. R. Clark and W. J. Clark for their critical comments on the manuscript. This is contribution No. TA 10383 of the Texas Agricultural Experiment Station.—JAMES C. KROLL, *School of Forestry, Stephen F. Austin State University, Nacogdoches, Texas 75961*, KEITH A. ARNOLD, *Department of Wildlife and Fisheries Science, Texas A&M University, College Station, 77843*, AND ROBERT F. GOTIE, *New York State Department of Environmental Conservation, Watertown, New York 13601, 12 March 1973*.

**The Rock Wren in Missouri.**—Neither Widmann (A preliminary catalog of the birds of Missouri, *Trans. Acad. Sci. St. Louis*, 17:1-288, 1907) nor Harris (Birds of the Kansas City Region, *Trans. Acad. Sci. St. Louis*, 23:213-371, 1919) mention the Rock Wren (*Salpinctes obsoletus*) for Missouri, but Bennitt (Checklist of the birds of Missouri, *Univ. Missouri Studies*, 7:48, 1932) lists the species as hypothetical. The first record for the state was on 4 November 1950 when the senior author studied for two hours a Rock Wren at Lake of the Ozarks, 10 miles south of Gravois Mills, Morgan County, Missouri. The bird was observed for several weeks around a board pile and a rock foundation of an incompletely constructed cabin in an abandoned field. At that date Easterla (12 years old) did not know the identity of the bird, but was aware that it was new and definitely not in Peterson's Eastern Field Guide. The senior author still has in his notebook a carefully drawn Rock Wren (drawn at that time) with an exact description of the species. It was not until later that the true identity of this bird was learned after a Peterson's Western Field Guide was consulted. Several years later it was learned that a Mrs. Earl M. Johnson, Sedalia, Missouri, had observed and heard calling and/or singing during a two week period a Rock Wren (presumably the same bird) at this same location during November 1950.

On 16 July 1964 John and Julie Hamilton observed for about seven minutes a singing adult Rock Wren near the Missouri River bluffs of northwest St. Joseph, Buchanan County, Missouri. Whether this bird was breeding is unknown, as it could not be found on later dates (pers. comm.). On 23 January 1966, Nathan Fay, Dr. and Mrs. James Key, and Dr. and Mrs. Allen studied a Rock Wren for several hours on a rocky barren slope near the shore of Bull Shoals Lake, near Cedar creek, Taney County, Missouri (pers. comm.).

During a study of tower fatalities, Ball found a dead Rock Wren on 5 October 1972 at the base of a Radio Tower on the N side of the Northwest Missouri State University campus, Maryville, Nodaway County, Missouri. The bird was fresh and had been killed the previous night. This is the first specimen (juvenile male; testes less than 1 mm; 17.2 gms; little fat) for Missouri. It was preserved as a museum skin (DAE 2691) and is at Northwest Missouri State University.

The Rock Wren should occur sparingly in Missouri during migration, as it is a common transient and summer resident in western Nebraska (rare migrant in the eastern part) and western Kansas (Rapp, Rapp, Baumgarten and Moser, Revised check-list of Nebraska birds, *Nebraska Ornithol. Union*, No. 5, p. 21, 1958; Johnston, Directory to the bird-life of Kansas, *Mus. Nat. Hist., Univ. Kansas, Misc. Publ.* 23, p. 43, 1960) and has been recorded once (spring) in Illinois (Smith and Parmalee, A distributional check list of the birds of Illinois, *Illinois State Mus., Series 4*, p. 44, 1955), twice (spring) in Arkansas

(James and James, The seasonal occurrences of Arkansas birds, *Arkansas Acad. Sci. Proc.*, 18:26, 1964), and several times (summer) in Iowa (Brown, An annotated list of the birds of Iowa, *Iowa St. J. Sci.*, 45:434, 1971).—DAVID A. EASTERLA, *Department of Biology, Northwest Missouri State University, Maryville, Missouri 64468* AND RONALD E. BALL, *804 South Buchanan, Maryville, Missouri 64468, 8 February 1973.*

**Starlings stealing worms from Robins.**—It is well-known that Starlings (*Sturnus vulgaris*) are adept at stealing worms from Robins (*Turdus migratorius*) and other thrushes Van Tyne, *Wilson Bull.*, 53:185, 1946; Snow, *A Study of Blackbirds*, 1958). However previous reports have said little about the rate of success enjoyed by Starlings. Here we discuss the results of watching a mixed foraging group of Robins (up to 20) and Starlings (up to 8) attracted to a watered lawn (Rainier Vista) on the University of Washington campus in Seattle on 17, 23, 24, 25, 31 May, 1, 2, and 16 June 1972.

Table 1 shows the species observed attempting to take prey from Robins and the degree to which they were successful. As Van Tyne also noted, Starlings that prey-steal do not usually stand about waiting for a robin to pull a worm from the ground. Instead they walk quickly along probing the lawn frequently in their normal foraging pattern. In the midst of this activity they will suddenly dash over to a robin, sometimes running, sometimes flying. The distance between the two prior to an attempted steal ranged from 15 cm to an estimated 18 m (mean = 3.5 m, N = 32 recorded cases). In one instance a Starling hunting on one side of Rainier Vista suddenly flew across the entire width of the lawn (18 m) to reach a Robin that had just extracted a worm.

In addition, on five occasions Starlings were watched as they cruised in the air over a group of foraging Robins and then suddenly dropped down beside a Robin with a freshly caught worm which they stole.

Most, but not all, attempts to steal a prey occurred when the Robin was in the act of capturing or had just removed a worm (79 of 99 cases in which this information was

TABLE 1  
BIRDS STEALING WORMS FROM ROBINS

Species	Attempts	Known Steals	Worm Lost <sup>a</sup>	Outcome Unknown
Starling				
Adult	109	37 (36%)	8 (7%)	6 (5%)
Fledgling	6	4		
Crow <sup>b</sup>	3	3		
Song Sparrow	1 <sup>c</sup>	0		
Robin <sup>d</sup>	23	8 (35%)	1 (4%)	6 (26%)

<sup>a</sup> Both the original owner and the attacker lost the worm when it escaped during the attempted steal.

<sup>b</sup> Each time a crow flew at least 15 m from a lamp post or tree at the edge of the Rainier Vista to a Robin with a worm on the lawn, displacing the Robin and taking the worm.

<sup>c</sup> The Song Sparrow (*Melospiza melodia*) attempted to take an adult lepidopteran from a Robin.

<sup>d</sup> Only cases where an adult bird attempted to rob another adult are included because of the difficulty in determining whether juveniles were robbing or being fed by a parent.