

in grass less than 6 centimeters tall. This difference in behavior between Starlings and Roadrunners may be explained by the difference in the food of the two species. Brownsmith's Starlings ate seeds as well as insects (personal communication), whereas my Roadrunners ate insects only. In tall grass a Starling is a "gleaner," and may pause from time to time, looking for insects. Roadrunners, on the other hand, are "flushers," detecting and disturbing insect prey as they forage. Roadrunners should spend less time standing still in tall grass than Starlings do if movement of insects is a more important cue for them than it is for the Starlings. The fact that Starlings and Roadrunners use different foraging strategies results in contrasting behavior within the same sort of habitat.

That Roadrunners forage in less than optimal areas (grass height greater than 10 centimeters) is puzzling. Roadrunners should, it would seem, spend all of their foraging time in areas of greatest efficiency (grass height less than 10 centimeters), but repeatedly I saw them foraging in tall grass. Though this may be inefficient for them from a feeding perspective, it may have certain advantages. Tall grass may provide shelter from wind and protection from some predators. Too, the tall grass areas may be the only areas that territorial pairs allow young birds to use.

DEPARTMENT OF BIOLOGY, CAPITAL UNIVERSITY, COLUMBUS, OHIO 43209, 22 JANUARY 1981.

GENERAL NOTES

Winter records of White-necked Raven in eastern Beckham County, Oklahoma.— The White-necked Raven (*Corvus cryptoleucus*) probably breeds regularly near Elk City in Beckham County, southwestern Oklahoma, but I have never found its nest in the area. On 13 May and 26 July, 1974, I distinctly heard its calls along a creek in the city itself. The woodlands of the region are inhabited by Common Crows (*C. brachyrhynchos*), whose *caws* are instantly distinguishable from the guttural *cronks* of the ravens. In general appearance the two species are much alike, for the white of the raven's neck does not often show in the field.

I have come to consider the White-necked Raven a regular fall and winter visitant to a pecan orchard that is just across a small stream from my house in Elk City, and in plain view to me. Here, when the crop of nuts is good, I often hear the birds, especially early in the morning. The pecan crop was unusually good in 1978. That fall and winter I heard the ravens every day from 3 to 10 November, on 5 December, and repeatedly between 24 January and 25 March. I name the dates not from memory but from a diary that I keep.

The pecan crop in 1979 was not good. I did, however, hear the ravens in the orchard between 16 and 28 October, again on 26 December, on 15 January, and from 2 to 19 February. Occasionally one perched on the power-line pole by my house.

The pecan crop was a total failure in 1980. Too, Soil Conservation Service work on the creek created so much disturbance that during the following fall

and winter I saw almost nothing of the ravens and little of the crows. I did record a raven once in late October (exact date uncertain).

The records mentioned above make clear that *Corvus cryptoleucus* does not leave some parts of Oklahoma in winter. The statement in Sutton (1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 376) to the effect that there is "no-satisfactory January record" for the state may, in other words, say more about the absence of observers than it does about the absence of the ravens.—Ina S. Brown, 106 Sunset, Elk City, Oklahoma 73644, 30 January 1981.

Robins banded in summer in central Oklahoma and recovered at same locality in winter. On 10 August 1973 I netted and banded (782-70125) an adult female American Robin (*Turdus migratorius*) in my yard at 1416 Huntington Way in Norman, Cleveland County, central Oklahoma. The bird was in good condition, though in heavy molt. Almost six years later—on 4 January 1979—it was observed by Mary Heckendorn "teetering on a piece of iron" in her yard at 828 Cruce Street in Norman. At a feeder close by, later that day, her son Robert found it dead. A recent storm and sub-freezing temperatures had covered the ground and shrubbery with ice, making food difficult to obtain.

I identified the dead robin when given the band number. George M. Sutton, who prepared the specimen (UOMZ 14216) as a skin, found it to be emaciated (weight 55.9 grams), noted that the tarsi and toes were heavily diseased, and considered the skull not fully pneumatized — a decision reached before he knew when the bird had been banded and one suggesting the possibility that extent of cranial pneumatization may not be a wholly reliable criterion in aging *Turdus migratorius*.

On 23 May 1973, again in my yard on Huntington Way, I captured and banded (782-70110) a male robin in full breeding feather that I recaptured twice at the very same place in *mid-winter* (on 14 and 22 February 1976) and again during the breeding season (on 3 May 1976).

The above data clearly indicate that some American Robins that breed in Oklahoma do not follow at all closely the migratory behavior of their species as a whole or that — perhaps depending on weather or the availability of food — they do not move away from their central Oklahoma breeding grounds very far, if at all, in winter. — Warren D. Harden, 2409 Butler Drive, Norman, Oklahoma 73069, 10 January 1981.

FROM THE EDITOR: The bluebird paper in this issue is timely, for there is widespread belief that *Sialia sialis* is becoming an endangered species. It is to be hoped that Dr. Carter will initiate another three- or four-year study of Eastern Bluebirds on the Carter family's farm near Ada, and that other parts of the state will also receive attention. In further studies careful counts of adult breeding populations and details on two-broodedness and cowbird-parasitism will be in order.

Douglas Mock and D. Scott Wood are to be thanked for their help with editing this issue.—Jack D. Tyler. (S)