

nestlings from these 41 nests, according to whether they were first-, second-, or third-day hatchlings is illustrated in Table 1. Of 77 first-day hatchlings, 2 vanished, a total loss of 2.6%. Of 61 second- and third-day hatchlings, 14 starved and 6 vanished for a total loss of 32.8%. This loss of nestlings occurred throughout the brooding period. A nestling with a few hours head start enjoys a size advantage over later hatching birds. Four birds that were discovered hatching and re-examined 5 h after hatching had gained 1.5 g from a hatching weight of 3.0 g. The mean weights of second- and third-day hatching nestlings were smaller than those of first-day hatching nestlings throughout the nestling period (Table 2), though by day 9 the weights of surviving first-, second-, and third-day nestlings were not significantly different.—CHARLES STREHL, *Dept. of Zoology, Univ. of North Carolina, Chapel Hill 27514. Accepted 8 Aug. 1977.*

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Weather-related mortality of blackbirds and Starlings in a Kentucky roosting congregation.—Associated with an over-night storm in Illinois, Odum and Pitelka (Auk 56:451–455, 1939) found approximately 4.0% mortality among blackbirds and Starlings (*Sturnus vulgaris*) in a roosting congregation containing 25,000 birds. The rate of mortality was much higher among Common Grackles (*Quiscalus quiscula*) and Brown-headed Cowbirds (*Molothrus ater*) than among Starlings. Also, MacReynolds (Auk 34:338–340, 1917) found 30 dead Common Grackles at a roosting site in Pennsylvania after a heavy snow storm, and Forbush (Birds of Massachusetts and other New England States, Part 2, Mass. Dept. Agr., Boston, Mass. 1927:409) found about 500 dead Starlings at a roosting site in Massachusetts after a winter storm. On the morning of 12 January 1977, I visited the roosting site near Russellville, Kentucky, of a congregation of blackbirds and Starlings and found 38 dead birds on top of the snow. In walking over the same route the following day, 26 more dead birds were found.

The dead birds were found in walking about 380 m through the roosting site each day, with the size of the sample limited by the difficulty in walking through the vines and underbrush. I was 2–5 m from the 64 birds when first spotting them, with an average of 3.6 m. Thus, I covered a strip about 7.2 m wide and in walking 380 m covered an area of about 0.3 ha. The roosting congregation covered about 1.6 ha, and a total of about 374 birds thus probably died on the 2 nights. The total congregation contained an estimated 45,000 birds, and the mortality rate for the 2 nights was approximately 0.8%.

The congregation contained about 0.8% Starlings, but 84.4% of the birds found dead were Starlings, with the rate of mortality 106 times the proportion in the congregation. About 0.9% of the congregation was Red-winged Blackbirds (*Agelaius phoeniceus*), with 6.3% of the birds found dead being of this species and the rate of mortality 7 times the proportion represented in the congregation. About 98% of the birds in the roosting congregation were Common Grackles, but only 9.4% of the dead birds were grackles. Thus, unlike the situation reported by Odum and Pitelka (op. cit.) where the rate of mortality was much higher among Common Grackles than Starlings, the rate of mortality I observed was about 9 times higher among Starlings than Common Grackles. Approximately 14,500 Common Grackles left the roosting site on a line headed southward in the evening of 8 January, suggesting that many of the birds responded to environmental stress by southward movement (Stewart, Bird-Banding, in press). The congregation contained about 0.3% Brown-headed Cowbirds, with none found dead.

A total of 25 cm of snow fell during the period 3–10 January, making finding food difficult for the birds. Furthermore, weights of the Starlings found dead at the roosting site were relatively low, the 54 birds averaging 81.4 g; whereas, 22 Starlings shot at mid-day averaged 94.6 g. All of the 6 grackles and 17 of the 54 Starlings found dead at the roosting site contained food in their gizzards, indicating that at least some of them had not died from starvation. More birds were found dead on the morning of 12 January (38) when the lowest temperature during the night had been -24.4°C than in the morning of 13 January (26) when the lowest temperature was -17.2°C . I think that the mortality can be considered to have been weather-related, but, when there had been no shooting following 2 heavy snowfalls in North Carolina, I searched at blackbird-Starling roosting sites without finding any dead birds.

Many Starlings came to the roosting site each evening only to leave immediately to go to spend the night in a nearby barn. Nine dead Starlings were found in the barn on the mornings of 12 and 13 January. Since approximately 2500 Starlings roosted in the barn, the rate of mortality (0.4%) was much lower among Starlings in the barn than among those roosting in the trees (15%). The owner of the barn reported that the Starlings roosted in the barn only in unusually cold weather.—PAUL A. STEWART, 203 Mooreland Drive, Oxford, North Carolina 27565. Accepted 5 Aug. 1977.

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An observation of polygyny in the Common Yellowthroat.—During the summer of 1967 at the American Museum of Natural History's Kalbfleisch Field Research Station at Huntington, New York, we observed a color-banded male Common Yellowthroat (*Geothlypis trichas*) mated with 2 color-banded females, each of which successfully fledged young (on 5 and 10 July). On 2 June, the male and female A were observed feeding in a hedgerow that divided 2 fallow fields. On 14 June, the male was observed aiding a second female (B) in the early stages of building a nest in the field to the south of the hedgerow. On 18 June, the male was again observed feeding with female A who had a clutch of 4 eggs in the field to the north of the hedgerow. Observations made on 26 June revealed that the male was feeding the recently hatched nestlings of A and making infrequent visits to the vicinity of B who was observed incubating a clutch of 4 eggs.

Extensive observations on 4 and 5 July revealed that the male continued to assist female A in feeding her young, but spent approximately 25% of his time singing in the hedgerow and visiting female B, presumably to assist feeding her nestlings. On 8 July, the male divided his time equally between both fields. During the entire day of 14 July, the male fed young with female B except for 2 short visits to female A.

Female A and her young were last observed on 19 July. The male remained with female B in the south field and intermittently fed the young during the remainder of July and August. The male gave the flight song on several occasions, but no further nesting attempts were discovered in the area.

The territory of this male yellowthroat was about 1.2 ha, approximately twice the size of that reported for monogamous males (Stewart, 1953, *Wilson Bull.* 65:99–115). Breeding bird censuses of the south field during the 2 previous summers (unpubl. reports Kalbfleisch Field Research Station Am. Mus. Nat. Hist.) reported 2 male yellowthroats occupying territories comparable to those reported by Stewart. During our study, only the one male was present and the remainder of the south field was unoccupied by