was apparently a combination of food shortage and severe cold. All of the dead birds were emaciated and had no fat reserves. Their weights ranged from 19.5 to 25.9 g, with an average of 22.2 g. The weights, however, may have been slightly reduced by dehydration in the interval between death and the time of weighing. Normal weight is approximately 30 g.

Usually at this latitude severe cold spells are brief and are followed by warmer weather during which, even in December, January, and February, some arthropods are active and, consequently, available to bluebirds. However, the winters of 1960–1961 and 1976–1977 were exceptionally cold. January 1961 temperatures averaged 3.8°C below normal with a minimum of −19.5°C (U.S. Weather Bureau, 1961). January 1977 temperatures averaged 8.6°C below normal and only 15 days had temperatures above 0°C (U.S. Weather Bureau, 1977). In addition, snow and/or ice covered the ground throughout January except for one brief period early in the month. Fruits and berries such as sumac (*Rhus* sp.) were the primary components of feces in nest boxes where bluebirds had roosted and would probably sustain bluebirds during brief periods of extreme cold. The short days for feeding, the absence of any insects, and the enduring abnormally cold weather and snow and ice cover apparently prevented the bluebirds from obtaining sufficient food.

Other writers (e.g., James, 1961, 1962, 1963) have noted the tendency of bluebird populations to be much lower in years following abnormally cold or severe weather in the winter range. The breeding population on my Obion County study area dropped from 25 pairs in 1976 to 14 pairs in 1977. None of the banded adult females from 1976 returned to nest in 1977. Therefore, I suspect many of the nesting birds on the study area in 1977 were emigrants.

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Received 1 September 1977, accepted, 1 November 1977.

Long-distance Displacement of Two Southern Barn Owls.—Displacement data for banded Barn Owls (*Tyto alba*) showed that adults moved as much as 1,371 km (850 mi) but that 77 percent of the recoveries were within 83 km (50 mi) of the banding site (Stewart, *Auk*, **69:** 227–245, 1952). When the recovery data were separated into northern and southern populations, however, not one of the southern recoveries was made more than 161 km (100 mi) from the banding site. Stewart tentatively concluded that southern Barn Owls are relatively sedentary compared to their northern counterparts. Two recoveries of Barn Owls banded in Texas offer additional data concerning the movements of the southern population of this species.

The first record concerns an adult captured and banded on 2 February 1967 in a nest box erected on the Rob and Bessie Welder Wildlife Foundation near Sinton, Texas. Band number 716-94623 was affixed to the unsexed bird. The bird evidently was using the box as a daytime roost because no eggs were present even though the species regularly nests in the boxes (see Otteni et al., *Wilson Bull.*, **84:** 434–448, 1972). The bird was recovered near Veracruz, Mexico, during November 1974 (no specific day available) 7 years

and 9 months after banding and an estimated 984 km (610 air miles) from the banding site. This distance, following a straight line from Sinton, Texas to Veracurz traverses water almost the entire distance. Assuming that Barn Owls do not undertake sustained flights across large expanses of water as the Gulf of Mexico, the actual movement of this bird was far greater than indicated. There is no record of this bird revisiting any of the 20 or more nest boxes during the intervening period despite repeated inspections of the boxes each year.

Whereas it is possible that this bird was banded while enroute farther north, and thus not of the southern Barn Owl population recognized by Stewart (1952), it seems more probable that it was a member of the local breeding population. Nearly 70 percent of 112 Barn Owl nests studied at the Welder Wildlife Foundation between 1965 and 1971 were initiated in January, February, and March (Otteni et al., 1972). Further, Stewart's (1952:237) map of the geographic displacement of northern Barn Owls completely lacks any recoveries from as far south as the 28th parallel, the site of this bird's initial handling (i.e., none of the northern Barn Owls are known to move into south Texas and Mexico).

The longevity of this bird is also noteworthy because it was in at least its ninth year of life when recovered. Stewart (1952) found that the average age of Barn Owls banded as nestlings was about 1.5 years with the oldest bird living to 11.5 years. Additionally, Stewart emphasized the difference in longevity between the average life span of the northern and southern populations. The southern birds had an average life span of about 2.5 years whereas the northern birds had a shorter span of slightly more than one year. Henny (*Bird-Banding*, **40:** 277–290, 1969) found that mortality was greater among northern Barn Owls, presumably because of winter stress.

The second record concerns a Barn Owl of known age. This bird, banded 776-64611 on 2 June 1974, was captured as an owlet in a nest box at the Welder Wildlife Foundation. It was recovered near Camargo, Tamaulipas in northern Mexico on 22 October 1976. The recovery site is 248 km (154 mi) from the banding location. This record gives further support to the contention that southern Barn Owls may move distances well in excess of those data published earlier (Stewart, 1952) and suggests that these movements occur without the rigors of severe winter weather acting as a proximate factor. I am indebted to W. F. Kennison and to Eugenio Saenz S. for reporting the banded birds.—ERIC G. BOLEN, *Rob and Bessie Welder Wildlife Foundation, Sinton, TX 78387*. Received 17 August 1977, accepted 23 September 1977.

Possible Weather-related Southward Movements of Common Grackles in Early January.—As part of a continuing study on the roosting and feeding behavior of communally roosting blackbirds, I spent the period 8-13 January 1977 at or near Russellville, Kentucky, watching the activities of these birds. Common Grackles (*Quiscalus quiscula*) started arriving at the roosting site soon after my arrival at 1600 on 8 January. The birds came from various directions but mostly from the south. Then at 1647, four minutes before sunset, they started leaving the roosting site in a southward direction. I did not attempt to follow the birds, only tracking them as far as they could be seen from the roosting site. The flow from the roosting site continued 11 min and involved approximately 14,500 birds. Although the movement can be seen as a mere change of roosting sites, the direction chosen indicates that it can also be considered a component of southward migration. The flight consisted entirely of Common Grackles, and the remaining roosting congregation of approximately 45,000 birds consisted of more than 98 percent grackles.

Because 8.3 cm of snow fell on 7 January, grackles were handicapped in their food finding by the snow cover. That they left the roosting site flying in the direction from which most of them had just come from foraging suggests that the birds may have been returning to areas where more favorable conditions for their living previously had been found.

In walking about 380 m through the roosting site on 12 and 13 January, I found six dead grackles. I was 2–5 m from the birds found when I first spotted them, with an average of 3.6 m. Thus, I covered a strip about 7.2 m wide, and in walking covered an area of about 0.3 ha each day. The mortality indicated that the birds were being stressed, for, when no shooting occurred, I searched for dead birds at blackbird-starling roosting