LITERATURE CITED

De Haven, R. W., and J. L. Guarino. 1969. A nest-box trap for starlings. *Bird-Banding,* **40**: 49-50.

Dhondt, A. A., and E. J. Van Outryve. 1971. A simple method for trapping breeding adults in nesting boxes. *Bird-Banding,* **42**: 119-121.

Fischer, R. B. 1944. Suggestions for capturing hole-nesting birds. *Bird-Banding,* **15:** 151-156.

Grice, D., and J. P. Rogers. 1965. The wood duck in Massachusetts. Massachusetts Div. Fish and Game, Final Rep., Fed. Aid Proj. W-19-R, 96 p.

Kibler, L. F. 1968. A radio-controlled trap for bluebirds and other hole-nesting birds. *EBBA News,* **31:** 167-173.

———. 1969. The establishment and maintenance of a bluebird nest-box project. *Bird-Banding,* **40:** 114-129.

Lincoln, F. C. 1947. Manual for bird banders U. S. Fish and Wildl. Serv. Washington, D. C., 116p.

Lockley, R. M., and R. Russell. 1953. Bird-ringing: the art of bird study by individual marking. London, Crosby Lockwood and Son, Ltd., 119p.

Norman F. Lockyer, Charles P. Stone, and Joseph L. Guarino, *Bureau of Sport Fisheries and Wildlife: Building 16, Denver Federal Center, Denver, Colorado 80225.* Received 30 October 1972, accepted 5 November 1972.

Longevity surprise: the Bobolink.—Little is known concerning natural longevity of the few transequatorial migrant passerines that breed in the United States and Canada. Here I report data on longevity of the Bobolink (*Dolichonyx oryzivorus*), a songbird which annually migrates approximately 19,000 km round trip between nesting habitats in the northern United States and southern Canada and its wintering grounds in southern Brazil, Uruguay, Paraguay, and northern Argentina. The distance of these flights is unsurpassed by any other North American passerine species, and the rigors of its migration, including a non-stop traverse of the Caribbean Sea from Jamaica to South America, would presumably inflict heavy casualties and hence limit the life span of this bird. Moreover, as a consequence of a conspicuous plumage pattern and a strongly polygynous social structure (see Martin. Polygny in the Bobolink: habitat quality and the adaptive complex. Ph.D. dissertation, Oregon State University, 1970) which demands substantial display exposure for territoriality and sexual advertisement, male Bobolinks should be more vulnerable to predation than less active, more cryptic passerines. Morphological and behavioral characteristics combined with the stress of lengthy migrations, therefore, should pose important constraints on longevity.

From 1966 through 1972 the behavioral ecology of a population of Bobolinks nesting in southcentral Wisconsin was studied. Results of the investigation shed light on longevity of individually marked birds of this population. Only nestlings were banded in 1966, but in subsequent years, adults as well as nestlings were distinctively color banded. Adults of this species exhibit remarkable site tenacity, and mature males, especially, return each spring to the same breeding meadow. A few individuals that were hatched and raised in this field also return yearly. Site tenacity of these "native" birds permits chronological assessment of recruitment of known-aged birds to the breeding population, and thereafter, longevity accounts for these individuals. Based on long-term trends of adult male returns, the analysis that follows assumes that individuals failing to return to the study-field any spring have died since the end of the previous breeding season. For females, which are known occasionally to shift nesting locations to different fields, this assumption is not valid and individuals might still be living despite their absence at the nesting meadow under investigation.

Complete accounts covering periods sufficient to provide maximum longevity data are available for birds banded during the first two years of the study. They come from four Bobolinks banded as nestlings and five birds banded as adults, as tabulated here:

Band number	Sex	Date of banding	Minimum age at banding (Yrs)	Year of last return	Minimum age at last return (years)
		Banded as nestlings			
103-104330	♂	16 June 1966	0	1971	5
103-104332	♀	16 June 1966	0	1971	5
106-149724	♂	1 July 1967	0	1972	5
106-149820	♀	9 June 1968	0	1972	4
		Banded as adults			
106-140102	♂	6 May 1967	2	1970	5
106-140105	♂	13 May 1967	2	1970	5
106-140107	♂	13 May 1967	2	1970	5
106-140116	♂	24 May 1967	2	1970	5
106-140121	♂	26 May 1967	2	1971	6

Comparison of arrival dates between males returning in their first spring following hatching (yearlings) and their return in successive years reveals a different migration period for yearlings and older males. Males two years and older invariably establish territories in early to mid-May, while yearlings first appear at the breeding meadow late in May and continue arriving until mid-June. My recorded arrival dates for all adult males entered in the above table indicate that each was at least two years old at the time of banding. Because males 106-140116 and 106-140121 defended territories for almost two weeks before I was able to capture them, I am confident that they also were at least two years of age when banded. Distinctive song patterns were used to distinguish these two males from other arrivals prior to their banding.

The five adults banded in 1967 represent 62.5 per cent of the territorial males banded in that year. Four of these lived for at least five years and the other lived a minimum of six years, attesting to a surprisingly long life-span for such a high proportion of this population, despite the special handicaps dictated by its long-distance migration and polygynous mating system. Data from the longest-lived birds banded as nestlings, both males and females, coincide with these values, giving further confirmation of considerable longevity for this species. Two birds banded as nestlings were alive at cessation of the breeding period in 1972; consequently, because they might live to return in future years, ages given for them represent minimum life spans. A similar trend is emerging for adults banded in 1968 and later years, but the termination of field work after the 1972 breeding season will make it impossible to follow these later age cohorts through to death of individual birds. Nonetheless, the few cases presented here make it clear that Bobolinks often live for five years or longer.

Portions of my studies of this species have been funded by NSF and NIH Predoctoral Fellowships, grants from the Frank M. Chapman Memorial Fund of the American Museum of Natural History, and by a Biomedical Sciences Support Grant awarded to Colorado State University.—STEPHEN G. MARTIN, *Department of Zoology and Entomology, Colorado State University, Fort Collins, Colorado 80521.* Received 5 November 1972, accepted 13 November 1972.