



Jan. - Feb.

A Bird Bander's Diary

by
Ralph K. Bell

Jan. 31, 1968 ... Sunny and warmer. The thick ice moved out of 10-Mile Creek last night and into the Monongahela River. This is what the old timers would call the "January thaw". Two Bluebirds were looking over one of the yard boxes this morning. They are the first I have noted here on the farm for perhaps six weeks. They are generally scarce over the whole area this winter and we could only find six on our Christmas Count.

Feb. 4 ... Noted three Bluebirds this morning and heard others. All this activity has prompted me to take time out and check over the records of my 1967 Bluebird nest-box project and try and evaluate the results, which are as follows: (the figures do not include those of Wesley Knisley, who makes our boxes; Wes has a sub-permit and banded 145 young on his own route.)

	<u>1967</u>	<u>1966</u>
Total boxes checked	201	130
Boxes in which Bluebirds attempted to nest	158	91
Boxes used for 2nd nesting attempt	100	29
Boxes used for 3rd nesting attempt	11	0
Total eggs laid	1015	516
Total eggs hatched	788	422
No. of young that apparently left boxes safely	578	377
No. of bands used on nest-box route	495	334
Banded young that apparently left boxes safely	467	No record
No. of young that left boxes unbanded	111	No record
No. of banded young (additional) in four private boxes	13	0

Two boxes (nos. 15 and 19) tied for top honors by producing 12 young each. There were three broods in each box, and I might add that both of these boxes were in an open area with a southern exposure.

Bluebirds were successful (with my help) in some boxes despite competition. House Wrens and Bluebirds fought over 42 boxes. Bluebirds were successful in producing 118 young in 27 of these boxes with an average of 2.8 young per box. House Sparrows and Bluebirds fought over 19 boxes. Bluebirds were successful in producing 63 young in 12 of these boxes with an average of 3.3 young per box. Bluebirds had 90 boxes all to themselves and produced 397 young in 67 of these boxes with an average of 4.4 per box. House Wrens and House Sparrows were a problem in a few other boxes but were not considered in the figures if they did not start to build nests.

The large number of unbanded young indicates that I could not always get to all boxes at the right time. Also, some young were not banded during the cold spell in May if there was any doubt about their survival. When banded young did die during this prolonged cold spell, the bands were removed and used on other nestlings later. I mentioned this cold, wet period in the DIARY of the 1967 July-August issue of EBBA News. Since this column is devoted to the 1967 results of the Bluebird nest-box project, the effects of this unseasonably cold weather should be given. A base period from May 1 to May 15 is used. During this period the weather was very cool with rain almost every day. As a result, insect hatch was at a minimum. To qualify for the check each Bluebird box had to contain young some time during that period.

Total boxes containing young during period	73
Number of boxes in which young died	36
Total number of nestlings found dead	151
Additional young that probably died	11
No. of boxes that probably fledged young	37
No. of nestlings that apparently left boxes safely	158

Considering the adverse weather conditions it is surprising that about 50% did live to leave the boxes. The parents usually tried to feed all the young, or else abandoned them entirely. The most critical period naturally was after they were half-grown, when the food demand was the greatest. Many died after they were completely feathered. Some were even able to get out of the boxes and were found dead on the ground.

Since starting this Bluebird nesting project in 1964, I have been impressed by the thoughts and expressions of others about the proper box to use - not only as to the size of the box, but the color of the finish, etc. Mr. Lawrence Zeleny, 4312 Van Buren St., Hyattsville, Md., has done some research that is worthy of mention. Mr. Zeleny is associated with the National Association for the Protection and Propagation of Purple Martins and Bluebirds in America, and has some very interesting figures pertaining to inside box temperatures on a day when the shade temperature is 90°. He used three different type boxes and placed all in full sun (at noon) under identical conditions. The results are as follows (in degrees F.):

His plywood box (4"x4")	with natural finish	101° F.
"-	top painted white	99
"-	top painted black	102
"-	all white	98
"-	all green	103
"-	all dark brown	112
Masonite box (5"x5")	stained dark brown	111
"-	painted white	102
"-	painted green	110
Our pine box (3½"x3½")	(aluminum roof)	103

Above dimensions are inside box dimensions.

Mr. Zeleny sent me one of his boxes and while it probably costs more to make, it is very well made and has some advantages. His box is deeper and would be better protection against house cats and raccoons. It is also ventilated and has drainage holes. These two features would make it cooler. No data yet as to preference by Bluebirds but this will be checked this summer.

As a result of Mr. Zeleny's study, I may slowly increase the number of white-painted boxes in some areas. While it seems to take Bluebirds longer to accept the white boxes, they did occupy the few last year that were in the proper locations. While I much prefer to place boxes on the north or east side of a pole (for coolness) there are some good locations that only a southern or western exposure is more logical. Plans are now under way to experiment with some type of ventilation at these locations to check the results whenever we have a really hot summer. We still prefer placing boxes on utility poles in this area but I understand many utility companies object to anything on their poles, even if no nails are used.

I especially like the "slip" or tension wire idea. Last summer I started to slip each box up the pole to about 7 ft. height after the eggs were laid (if it wasn't House Sparrow country). This is an added deterrent to predators. To get back to the difference in utility companies, I would like to mention an incident that happened here last summer. Wes Knisley had two of his boxes on old poles that needed replacement. The workmen removed his boxes, put in new poles and then fastened the boxes back on the new poles in their original position.

The high mortality of several species of birds in the southeastern United States during the severe winter of 1957-58 seemed to be the spark that really alerted birders and conservation people alike to the possible effects of a rapidly changing environment on some of our familiar birds. The Bluebird was one of these. This has happened before and I would like

to quote from W.E. Clyde Todd's "Birds of Western Pennsylvania" (1940).

"The Bluebird is not nearly so common now as it was in the early nineties. The winter of 1894-95 is memorable for the havoc wrought upon the Bluebird population by the long-continued cold. That spring scarcely one Bluebird returned out of every hundred that had gone south the fall before. The survivors, of course, were the hardiest of their race, and the species recovered its lost ground with surprising quickness. Five or six seasons brought it almost up to its former numbers. Seemingly the increase was unchecked until it reached a certain point, beyond which it was unable to go. In recent years there has been another notable falling off in numbers, attributable, I believe, to the inroads of the European Starlings, which actively compete with the Bluebird for nesting sites and which bid fair, if unchecked, to reduce the numbers of this species to a tithe of what they once were."

Anyone interested in the Eastern Bluebird and some of the causes for the current decline should read Douglas James' excellent discussion in the June 1962 issue of Audubon Field Notes (Vol. 16, No. 3, pp. 308-311). It is a very interesting summary. Also included are maps showing the drastic reduction of Bluebirds in the eastern United States from 1957 to 1961.

Checking and keeping complete records on 200 boxes is really time consuming. One can wonder if all this work will have any effect on the Bluebird population in the future - say 100 years from now. However, so much interest has been generated in so many states in the eastern U.S. (and boxes erected) that the Bluebird should become fairly common in many rural areas and the next generations will have something to work with. At least we can say we did our part.

Box 229, Clarksville, Pa. 15322



YELLOW-TAILED
HOUSE FINCHES

Elinor McEntee is currently marking House Finches by placing a spot of bright yellow paint on the central tail feather, easily seen at a distance. By means of this temporary marking she hopes to obtain further information about their movement after they leave her banding station. Anyone who observes a House Finch with this marking, please send full particulars to: Mrs. H.B. McEntee, 490 Fairfield Avenue, Ridgewood, N.J. 07450.