John Zimmerman (Ph.D. in Avian Ecology). Sievert Rohwer (Ph.D. in Systematics and Evolution). Robert Hirsch (Graduate Student in behavioral ecology). John Tatschl (Ph.D. in Biology). Steve Den (High School Teacher). Richard Tuckfield (Undergraduate in Theoretical Ecology). Daniel Bowen (Graduate Student in behavioral ecology).

We do not presently understand what regulates bird numbers, we cannot predict fluctuations, and we cannot adequately assess the impact on the bird life of major environmental developments by man. We need this information badly, if we are to protect our bird-life. If you agree, please join the Institute - you know how rare people like you are, and we need all the help we can get.

How to join:

Send your check or money order for \$5.00 to:

Institute for the Study of Bird Populations Dr. Stephen Fretwell Kansas State University Manhattan, Kansas 66502

\* \* \*

## EBBA NEWS PHOTO CONTEST

In our May 1972 issue, we published the winning photo by Mr. Gil Fernandez, on page 75. The remaining three photos can be found on the following pages.

The first photo (On page 261) was taken on June 28, 1971, by Ken M. Prytherch of 821 Colonial Road, Franklin Lakes, N.J. 07417, at Bonaventure Island off Perce, Quebec, Canada. He used GAF-64 Color Slide Film (of course, the half-tone is in black and white), and a Contaflex IV 115 mm lens (f5.6 @ 1/60).

The second photo (Page 261) was taken by Mrs. Valerie M. Freer, of R.F.D. 1, Box 21G, Ellenville, N.Y. 12428. It should be noted that the bird was not posed; it apparently was quite impressed with its reflection in the mirror. This photo is originally a Black and White photograph.

The third photo (we reported in an earlier edition of *Ebba News*) is taken by Dorothy Foy. It has come to our attention that this is not the case. It was taken (date unknown) by William Savell and the slide apparently accidentally found itself in Mrs. D. Foy's slide collection. William Savell hails from Linwood, New Jersey.









Copies of ANNUAL or COUNCIL Meeting Minutes are still needed to complete our files, from 1957 through 1965 and prior to 1957. Anyone holding such documents, please make them available to us. If you so request, we will make copies and return the originals to you. Please contact: Mrs. Roger W. Foy, P.O. Box 164, Ship Bottom, New Jersey 08008. (Editor)

## HIGHLIGHTS OF TWENTY YEARS BANDING ON BELL HILL

## By John H. Kennard

In the summer of 1952 we built a house in Bedford, N.H., and later that fall I received my banding permit. The house is situated on the east end of a hill overlooking the Merrimac Valley, about five miles south of the city of Manchester; it is nearly in the middle of a thirty acre woodlot, with mixed areas of white pine and hardwood. It has a driveway, parking area and turnaround on the west, and a rather steep cleared slope dropping off to the east beyond a small lawn, garden and swimming pool area.

Early in the game I decided to concentrate on our local residents, the birds we knew best. Being a surgeon, and frequently on call for the emergency room of our local hospital, I found that netting was impractical; I'we chiefly used "pulltraps", boxes of hardware cloth approximately 30"x18"x8", with three doors that can be closed by a string led through a small hole in a window frame. These are used by the birds as feeding stations all year around, and I can catch selected birds whenever I wish. I have used nets occasionally for special purposes, and some automatic traps, notably during the past year two dove traps kindly loaned by the Massachusetts Audubon Society.

During these twenty years, I have recorded about 30,000 catches; most of these data are confusing, and probably much is useless. I have been fortunate in being able to study certain species in the same location for twenty years, and certain highlights stand out which I believe are of value and worth reporting. I hope to publish studies of certain species, the first two of which appear below.

## BLUE JAYS

During the twenty years we have banded 787 Blue Jays (Cyanocitta cristata). Of these we have listed 162 returns. A return is defined as a bird recorded more than 90 days after banding. A Blue Jay is an exceptionally intelligent bird, and learns about traps fast and how to avoid traps after being captured. Many birds have been missed for one or more years. These data are summarized in Table 1. In this table, the upper line represents years known to be alive; a bird banded in 1962, and retrapped in 1963, 1965 and 1967, would be included in the totals for 1964 and 1966 as well. This allowed us to make a graph on logarithmic paper, indicating the mortality rate by age (Figure 1). By this method, if the mortality was the same percentage, regardless of age, the line would be straight. We are all aware of the tremendous mortality of first year

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