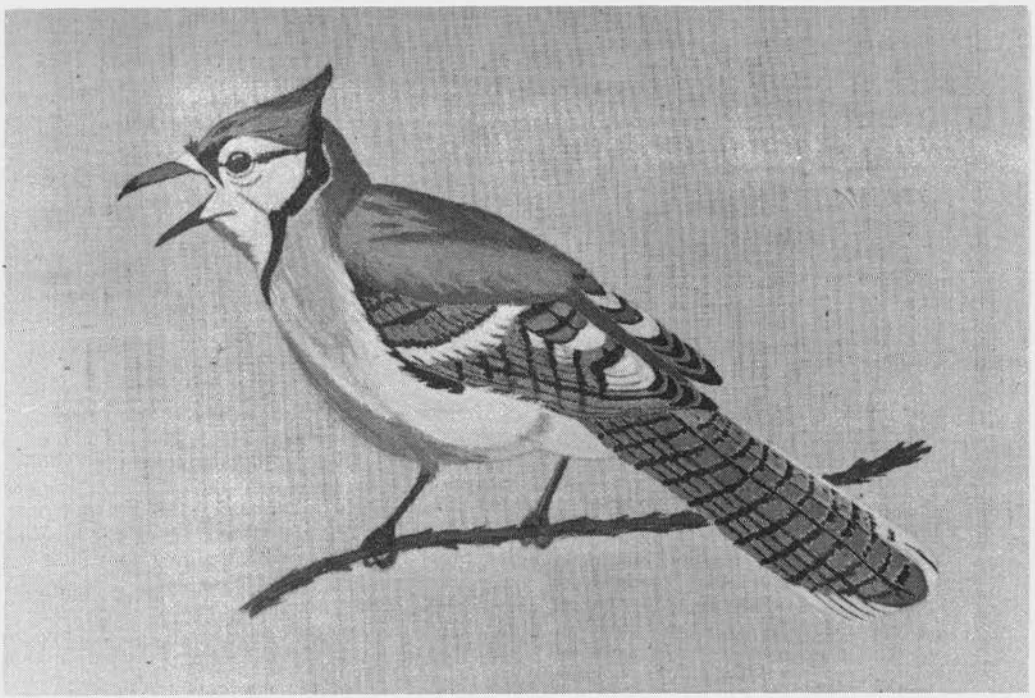

Blue Jay by Maggie Taylor

WHERE DID ALL THE BLUE JAYS GO?[1]

by Hanson C. Robbins, Medfield

Where are all the Blue Jays going? This question occurred to Bill Geizentanner, Elissa Landre, and me after spending a fascinating September morning in Chatham observing wave upon wave of Blue Jays, sometimes 200+ birds in a group (interspersed with accipiters), pass us on their way south towards Monomoy. Having read many reports about the exodus of Blue Jays from Massachusetts in the winter of 1978-79 and having witnessed their scarcity in Christmas counts led to an effort to answer the question by comparing the 1977 and 1978 Christmas counts. Surely, I told myself, comparison would reveal some place south of us just overrun with Blue Jays.

The task was not easy. I did not discover any large concentration of Blue Jays south of Massachusetts in the winter of 1979, and my investigations raised more questions than answers. For example, should we assume that the low Christmas counts in 1978 in eastern Massachusetts were due to the "out-migration" of these noisy creatures? Maybe those Blue Jays who normally come down to the Massachusetts coastal plain for the winter failed to appear in 1978-79. I present below evidence that tends to confirm such speculations. Is there a connection between the absence of Blue Jays in the 1978 count and the noticeable absence of other species? What causes this year-to-year variation in winter bird populations? What causes them to choose a particular wintering ground?

There are also questions relating to statistical objectivity, or the lack thereof, in Christmas counts. Having been on a few counts, I would say most participants concentrate on coming up with the greatest number of species and are rather less concerned about precise counts of birds within a species, particularly the common ones such as Blue Jays. This could be the explanation for the singular increase in the Blue Jay count on the 1978 Nantucket Christmas Count chosen by the Nuttall "hot shots" to be "covered properly" that year. These stalwarts (including many of BOEM's staff) racked up 123.5 party hours in 1978, compared to only 67 party hours in what must have been a less frantic 1977 Christmas count.

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[1] Editor's Note: Mr. Robbins wrote this article late in 1979, after the 1978 Christmas Bird Count data was published by the National Audubon Society. The manuscript was submitted to Bird Observer in January 1980, but due to lack of space, we were unable to publish it at that time. Although Blue Jays have been quite plentiful the past two winters, this article remains timely. First, it attempts to explain where the Blue Jays were during the winter of 1978-79. (As indicated in earlier issues of Bird Observer, the failure of the 1978 mast crop is believed responsible for the absence of Blue Jays in much of the northeast that winter.) The article is also important in that it is an all-too-rare example of an amateur birder using published data to better understand the bird life of Massachusetts. It is the Editor's hope that more readers will use Christmas and Breeding Bird count data to document changes in Massachusetts' bird life and that this research can be published by Bird Observer.

Nantucket was the only place in eastern Massachusetts to show an increase in Blue Jays from 1977 to 1978, from 53 to 76.

Banding records were then examined. In the fall of 1978, Manomet Bird Observatory banded 91 Blue Jays. There was only one recovery (in Wareham) 10 days after the bird had been banded. The sole recovery is also important. It illustrates one important fact, not generally recognized, about the migration habits of Blue Jays. Unlike many passerines, Blue Jays seem to be very casual in their southward meanderings. One must imagine them lingering a day here and a day there, wherever the food supply is adequate or the weather is suitable. That only 91 Blue Jays, a very low number, were banded in 1978 is significant. Manomet's banding data clearly did not reveal the wintering grounds of Blue Jays. A. C. Bent cites several relevant banding records in Life Histories of North American Jays, Crows and Titmice, but he fails to provide retrieval dates.

Despite the limitations of the Christmas Count data, I had no choice but to use it. I compared each 1978 Christmas Count Blue Jay total to the corresponding 1977 count. Gains or losses were calculated for each count area in eastern Canada and the eastern United States. In an attempt to offset any unreliability of the Christmas count figures, a percentage gain or loss from year to year of less than 25% was arbitrarily considered insignificant, i.e., as no change. I avoided the Midwest, Louisiana and Texas coast counts on the assumption that the Appalachian Mountains represent a natural barrier to migrating eastern Blue Jays. The findings appear on the accompanying map. A plus sign (+) represents a 1978 Blue Jay total 25% greater than the corresponding 1977 total. A minus (-) represents the opposite, a 1978 total at least 25% lower than the corresponding 1977 total. A zero means a total from year to year within a plus or minus 25% variation.

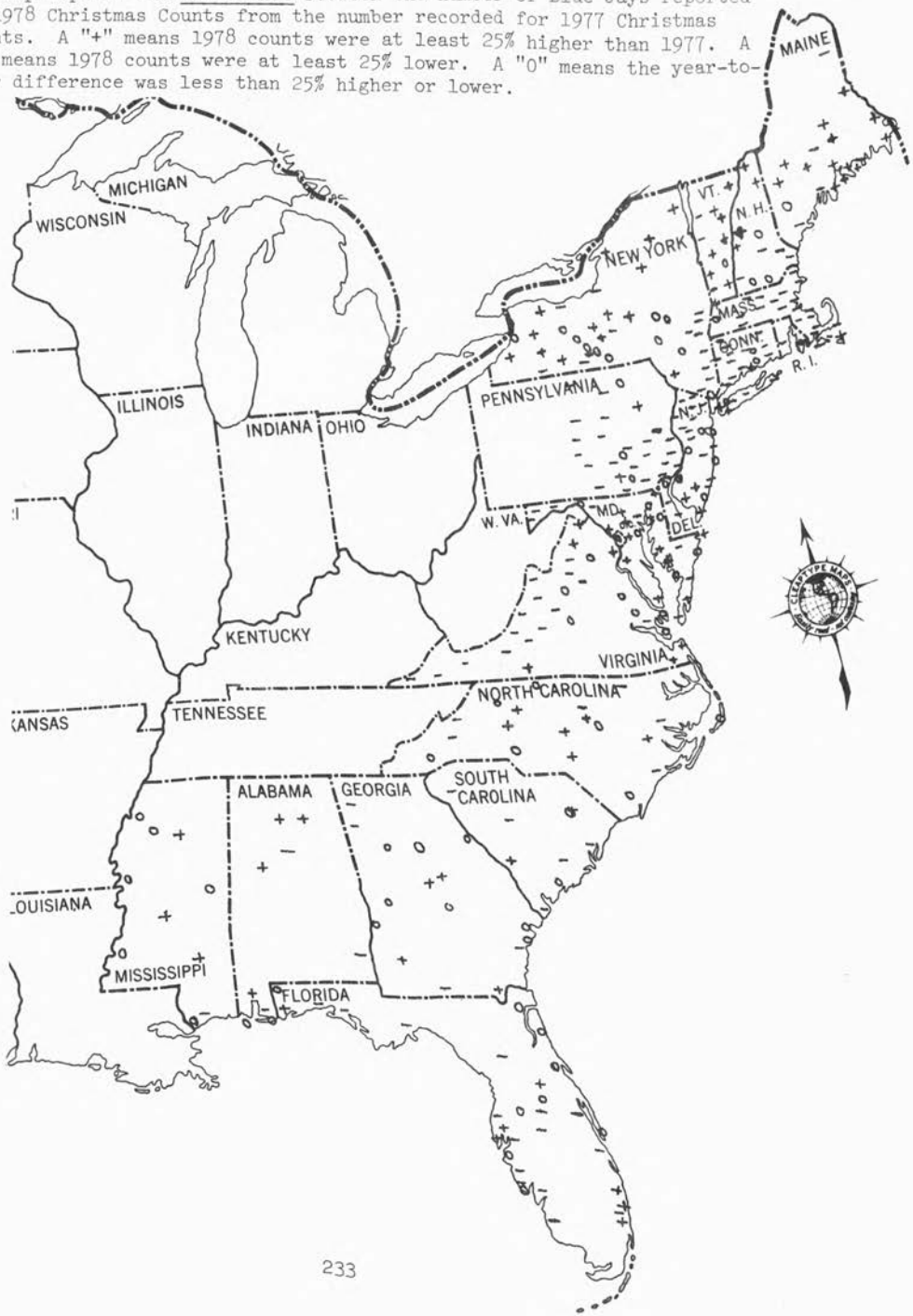
The map shows a very interesting pattern, particularly in New England and in New York. Along with Massachusetts, coastal Maine from about Portland south, coastal New Hampshire, Rhode Island, Connecticut, northern New Jersey, and eastern Pennsylvania suffered marked declines in Blue Jay numbers. Canada (not shown), northern Maine, northern New Hampshire, and Vermont had gains over 1977. This suggests that the jays we usually count at Christmas did not come south in 1978. It would also explain why the Manomet Bird Observatory had a poor Blue Jay banding year in 1978. Similarly, a case could be made that the low 1978 Blue Jay counts along the Hudson Valley were due to the failure of the birds to descend from the Adirondacks.

But large flocks of Blue Jays were going south that day in Chatham. Furthermore, unusually big counts were reported from Cape May later that same year. The map begins to show more zeros in southern New Jersey and eastern Maryland. Then, around Washington, D.C., in Virginia, western Maryland and part of the Maryland eastern shore, a series of pluses appears. This could be the answer. No other coastal plain areas from North Carolina to Florida show increases from 1977 to 1978.

An interesting phenomenon, which supports the deduction that "our" Blue Jays went to Washington, is revealed by the close examination of the Christmas counts at coastal promontories. The Blue Jays appear to have

Christmas Counts of Blue Jays

The map depicts the difference between the number of Blue Jays reported in 1978 Christmas Counts from the number recorded for 1977 Christmas Counts. A "+" means 1978 counts were at least 25% higher than 1977. A "-" means 1978 counts were at least 25% lower. A "0" means the year-to-year difference was less than 25% higher or lower.



been stacked up, as if afraid to cross open water, on southern Long Island and at Cape May, New Jersey. Cape Henlopin in Delaware also shows a marked increase in Blue Jays in 1978, suggesting that the blue horde was passing that point at the time of the Christmas count. Cape Charles, however, shows a marked decrease in Blue Jays in 1978. Logic dictates that if Massachusetts' Blue Jays were headed to the Carolinas for the winter, Cape Charles would show a plus. On the other hand, the Norfolk, Virginia area did show some pluses which cannot be explained by the above reasoning.

Another cluster of pluses appears in the North Carolina Piedmont. However, all along the Appalachian chain, from Pennsylvania to Georgia, a series of minuses appears, suggesting an exodus of Blue Jays from the southern mountains down to the foothills in 1978. Every state south of North Carolina shows no noticeable concentration of Blue Jays.

The Christmas counts indicate that Blue Jays do not leave the continental United States. In 1977 and 1978, Coot Bay, the Everglades, and Key Largo had zero jay counts.

I conclude, then, that the Blue Jay counts in eastern Massachusetts in December, 1978, were low because fewer jays came down from the north. Meanwhile, many Blue Jays migrated south from eastern Massachusetts and slowly worked their way down the coast to Maryland and northern Virginia. As to the reasons for the marked year-to-year difference in migration behavior, I leave that to the expert ornithologists to explain.

One final question. Why should we assume that Christmas counts indicate permanent wintering grounds for Blue Jays? Perhaps the Washington, D.C. concentration worked its way farther south during January and February. This may be an interesting subject to explore via compilation of banded bird retrieval records. Manomet alone has had 55 Blue Jay recoveries ranging between Alabama and Quebec. Also, in this age of miniature electronic components, low coast transmitters are now available to use to track individual birds.

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I wish to acknowledge with thanks the help of Richard Forster of Masssachusetts Audubon Society and Trevor Lloyd-Evans of the Manoment Bird Observatory in this study.