Movements of House Finches Banded in New York And Pennsylvania

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I have obtained from the Bird Banding Laboratory a listing of encounters of House Finches *(Carpodacus mexicanus)* banded in New York and Pennsylvania, including encounters reported before 12 April 1988. A total of 455 were of birds banded in New York and 688 were of birds banded in Pennsylvania. The listing was examined for information on seasonal movements of House Finches.

Methods

As the goal of my study was to determine the nature of seasonal movements of House Finches, the year was divided into periods the birds could be expected to be on their nesting and wintering grounds. Birds were assumed to be on their nesting grounds during May through July and on their wintering grounds during December through February. The listing was examined for records of birds banded during the nesting season and encountered during the winter or banded during the winter and encountered during the nesting season. The season of encounter was sometimes later than the opposite season first following banding. The distribution of House Finches as shown on the maps is in numbers of encounters and in percentages this represents of the total sample in the different states. New York and Pennsylvania were chosen because of the larger numbers of records from these two states. It was considered that too few records were available to justify an attempt to determine differences in movements related to age and sex.

Results

Of the 455 encounters of House Finches banded in New York, 65 were of birds banded during the nesting season and encountered during the winter or banded during the winter and encountered during the nesting season. Similarly, a total of 109 were chosen of the 688 banded in Pennsylvania. To the extent that the samples are representative of the populations of House Finches in New York and Pennsylvania, the distribution of the encounters can be taken as an indication of the winter distribution of House Finches nesting and hatching in these two states.

Of the 65 encounters of House Finches banded in New York, 17 (26.2%) were in the same 10-minute lat/long block during both wintering and nesting periods. In Pennsylvania, 20 of 109 (18.3%) were in the same block during both periods. Combining the samples from the two states, 37 of 174 (21.3%) were in the same block during both periods. About one-fifth of the population of House Finches in New York and Pennsylvania remain throughout the year in the same 10-minute block.

Eleven of the 65 (16.9%) encounters were of birds found in New York after leaving the block where they were banded, and 17 of 109 (15.6%) were of birds found in Pennsylvania after leaving the block they had earlier occupied in that state. Combining the samples from New York and Pennsylvania, 28 of the 174 (16.1%) remained in their respective states during the nesting and winter periods after leaving the 10-minute block earlier occupied.

Combining the encounters in the same 10-minute blocks where the birds were banded and those leaving that block and encountered elsewhere in the state, 28 of 65 (43.1%) were encountered in New York, and 37 of 109 (33.9%) were encountered in Pennsylvania. Of the 174 encounters, 65 (37.4%) were made in the state where the birds were banded. It is thus indicated that 37.4%, or roughly one-third, of the House Finches remain to spend the winter in New York and Pennsylvania after being there during the nesting season.

With 65 of 174 (37.4%) encounters in the states where the birds were banded, there remain 109 (62.6%) House Finches encountered elsewhere. Of these, 37 were of birds banded in New York, and 72 were of birds banded in Pennsylvania. The state distribution of the encounters by numbers is shown in Figure 1 for New York and in Figure 2 for Pennsylvania. Also shown is the percentage distribution of the samples or the percentage distribution during the winter of House Finches in New York and Pennsylvania during the nesting season.

While about one-fifth of the House Finches in New York and Pennsylvania remain in the same 10-minute block throughout the year, some travel relatively long distances. The House Finch traveling farthest to be encountered during the winter after banding during the nesting season was banded by Mrs. J. W. Corderman in New York on 10 July 1979 and encountered in Georgia on 17 February 1980, having traveled about 1200 km. Another House Finch banded by Mr. and Mrs. W. Pepper in Pennsylvania on 17 July 1982 and encountered in South Carolina on 7 January 1984 traveled about 900 km.

Discussion

As shown by a part of the population, House Finches are able to spend the winter northward into New York and Pennsylvania. Also, Middleton (1979) reported these birds common in southeastern Pennsylvania in every month of the year, starting in 1973. However, observations I made at my winter feeding station in North Carolina (Stewart 1988) showed House Finches vulnerable to winter weather involving snow cover. In the event of a winter or series of winters with unusually severe weather, the sedentary segment of the House Finch population in New York and Pennsylvania could be eliminated, leaving only the segment traveling far enough southward to escape the threatening environment. Development of a predominately migratory population could result. The widespread use of winter bird feeders may be the primary factor inhibiting development of migratory behavior.

Literature Cited

Middleton, R.J. 1979. House Finches in southeastern Pennsylvania. *North American Bird Bander* 4:166-168.

Stewart, P.A. 1988. Observations on avian morbidity and mortality at a winter feeding station.*Chat* 52:6-7.

Figure 1. Numbers of House Finches encountered during the winter after being in New York during the nesting season (first number) and percentages of nesting-season population in various states during winter (second number).

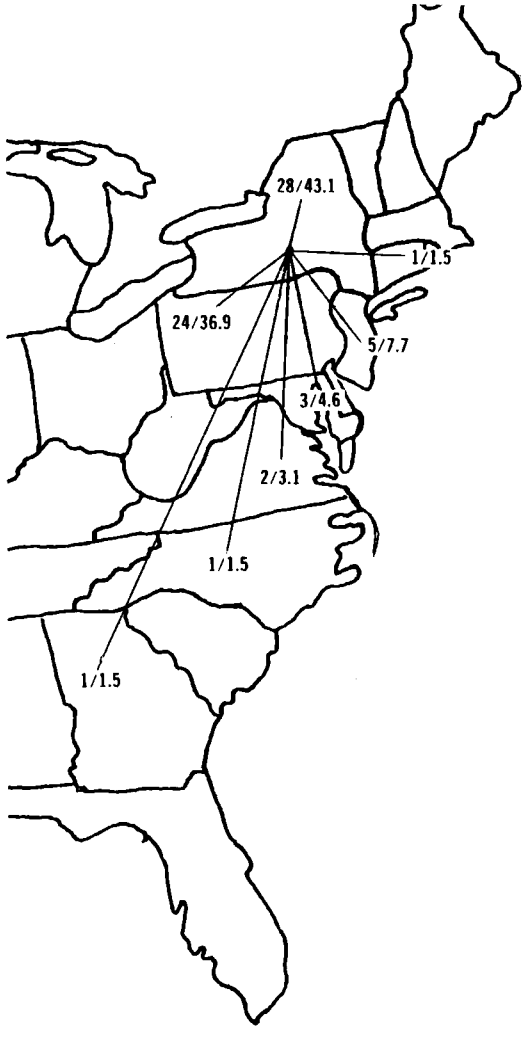

Figure 2. Numbers of House Finches encountered during the winter after being in Pennsylvania during the nesting season (first number) and percentages of nesting-season population in various states during winter (second number).