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Radial Dispersal and Southward Migration of Wood Ducks Banded in New York

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In this paper I analyze the movements of Wood Ducks *(Aix sponsa)* banded in New York during April through August and shot the following hunting season. The banding time was defined to cover the period the birds were expected to be on their breeding grounds. Thus, the birds can be assumed to have made direct flights from their breeding grounds in New York to their recovery sites there or elsewhere. All available recoveries of Wood Ducks made until 10 March 1976 after banding in New York were obtained from the Bird Banding Laboratory, Migratory Bird Populations Station, Laurel, Maryland. I made a similar analysis, to be reported elsewhere, for Wood Ducks banded in Vermont, furnishing information for comparisons with findings in this study.

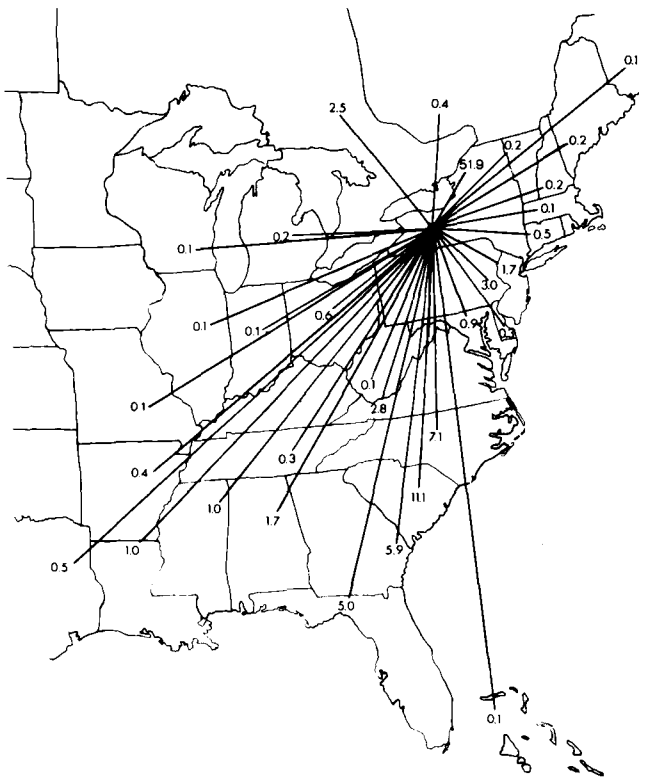

Figure 1. Dispersal and southward migration, by percentages, of 1230 Wood Ducks banded in New York. The exact localities of banding and recovery are not indicated by the locations of the figures or ends of the lines joining banding and recovery localities, only the state, province, or general region.

A total of 2,958 banding recoveries were obtained, and 1,230 of these were selected for use in this study. In Figure 1 is shown the percentages of the 1,230 birds shot in various states and provinces. More than half (51.9 percent) of the birds were shot in New York. However, the birds became widely scattered over the eastern United States and southeastern Canada, including the area to the northward from New York.

With the birds going other directions than southward, it is apparent that another movement than southward migration was involved, including northward movement. I earlier noted that Wood Ducks in Ohio made an all-direction dispersal movement in late September and early October, with southward migration starting in late October (Stewart, 1958). Of the Wood Ducks banded in New York, one (605-01216) was banded on 30 August 1972 and shot in Florida on 2 September 1972, showing that the dispersal flight sometimes may be made as early as late August or early September. This recovery also shows that the birds travel southward as well as other directions in the dispersal movement before the regular southward migration. Also, a Wood Duck (575-59300) banded in New York on 24 August 1967 was shot in South Carolina on 23 September 1967, showing southward movement before the time for southward migration.

This bird banded in New York on 30 August and shot in Florida on 2 September, traveled approximately 1,852 km in three days. The flight might actually have been made in even a shorter time than the available information indicates, for the probability is small that the flight was started immediately after the bird was banded and that the bird was shot immediately on arrival in Florida. The exact hours of banding and recovery are not available. This banding-recovery record indicates that the dispersal flight of Wood Ducks may be made rather quickly, the flight possibly being nonstop.

Compared with the dispersal movement, the southward migration was much more leisurely. The average date on which 638 Wood Ducks were shot in New York was 20 October; for 36 shot in Delaware, Maryland, and New Jersey it was 11

November; for 134 shot in Florida and Georgia it was 9 December. The birds appeared to move leisurely southward, many not reaching the southern part of their winter range until late fall or about two months after start of the movement. A similar situation was shown by the birds banded in Vermont. With the birds moving in all compass directions in their dispersal movements, some few moved southward ahead of the regular southward migration, making the average date on which the birds were shot earlier than would result if these few birds could be eliminated and only birds moving southward in the regular southward migration considered. However, as is shown in Fig. 1, the dispersal flights are relatively short for most birds, with many not leaving New York.

Of the 1,230 birds shot after banding in New York, 34.8 percent were shot in the Atlantic coastal states from New Jersey southward to and including Florida. With 51.9 percent shot in New York, only 13.3 percent of the 1,230 birds traveled elsewhere than southward along the Atlantic Coast in both the dispersal and migratory flights. The birds in their southward migration thus followed the Atlantic Coast to a considerable extent. This following of the Atlantic Coast probably resulted partly from the birds being funneled into a lane by the Atlantic Ocean, but it probably resulted also from the birds following their favored habitat southward. A similar situation was shown by Wood Ducks banded in Vermont. The leisurely movement of the birds and the fact that the lane followed swampy habitat, suggests that the birds in their southward migration followed their habitat southward with advance of the season. Fenneman (1938) reported the presence of extensive swamps on the various terraces along the Atlantic Coast.

Summary

Recoveries of 1,230 Wood Ducks banded in New York were analyzed to determine the nature of movement of these birds through the period involving radial dispersal and southward migration. The birds made a dispersal movement involving flights in various directions before their southward migration — to Florida in late August or early September in one case. The one case indicated that the dispersal flight is sometimes rapid, perhaps non-stop. In their southward migration, the birds moved leisurely southward, perhaps following their favored habitat southward with advance of the season.

Acknowledgments

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Literature cited

Fenneman, N.M. 1938. Physiography of the eastern United States. McGraw-Hill, New York.

Stewart, P.A. 1958. Local movements of Wood Ducks *(Aix sponsa)*. *Auk*, 75: 157-168. ◆

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