

2013

The Exploratory Life of Hatching-year Birds

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Recommended Citation

Dittmar, Erika (2013) "The Exploratory Life of Hatching-year Birds," *North American Bird Bander*. Vol. 38 : Iss. 3 , Article 15.

Available at: <https://digitalcommons.usf.edu/nabb/vol38/iss3/15>

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Inland Regional News

Inland Bird Banding Association

Founded 1922

President's Note

By the time you read this note, the association will have entered a new era. We are having our first electronic Board meeting this fall. Minutes should be in the next issue of *NABB*. This is all due to the new Bylaw changes last spring. It should make us a better organization. We rarely have a full Board at Board meetings and this will allow all Boards members to have input. Time will tell. Topics will include grant proposals, webpage changes, a new brochure, and possible new Bylaw changes for the next member's meeting.

I have been getting questions about the annual banding totals section of *NABB* for the IBBA area. We had a Board member who was going to try to get that information for an article from the Banding Lab, but evidently that fell through. I have had several members offer to pick it up and will be taking them up on their offer. It is probably better to have non-Board members doing it anyway. The greater the participation by members, the stronger the organization. If you have 2012 data you would like to include, email them to me in an Excel file and I will pass it on. Next year we hope to have a better system up and running.

Tom Bartlett, President
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The Exploratory Life of Hatching-year Birds

By banding and subsequently recapturing birds, we are able to learn extraordinary details about the movements that individual birds make. It is through recapturing birds that we learn about the timing of movements, the distances birds travel, as well as the paths they choose to take. I have always been fascinated with bird movement, so when I was offered a master's project involving radio telemetry of migratory songbirds, I was ecstatic. Radio telemetry, like band/recapture, allows us to track an individual as it moves. The beauty of telemetry is that the added technology enables us the opportunity to find where an individual is located at

any time, not just when that individual happens to be captured in a mist net.

My project focuses on the habitat selection of Hatching-Year (HY) birds before their commencement of migration. My focal species is the endangered Black-capped Vireo and I conduct my research in central Texas, where a large population exists due to effective protection and management. In order to study movements of individuals, I attached radio transmitters to young vireos and proceeded to locate individuals twice a day until the battery inside the transmitter died. I have just

finished my final field season and have learned that the movements these little birds make are complex, surprising, and incredible. I would like to share just one of the many fascinating observations I discovered about individual movements.

Many of the birds I tracked stayed within a relatively small area of preferred habitat, a home range or a non-defended territory. Habitat characteristics varied between individuals' home ranges but likely contained a good food source and sufficient vegetation cover for protection from predators and the elements. A fascinating trend I found was that many individuals would leave these areas for a period of time ranging from an hour to a couple of days and then return back to their territory. These movements varied from 500 m to more than 3200 m and were made by both HY males and females. Explorations were made to all types of habitats, including shrub lands, the preferred breeding habitat for Black-capped Vireos.

It seems to me that exploratory movements by young, inexperienced birds are incredibly dangerous! These birds are only 6 to 10 weeks old; not much time has passed since they were helpless nestlings. Much, if not all of their surrounding landscape, is new and contains challenges and hazards. Investigative movements may involve flying over open grasslands and roads, areas where a vireo may become the victim of a hungry Cooper's Hawk or a speeding MINI Coupe. Exploring takes energy which may deplete fat stores and muscle mass, possibly decreasing the chance of future survival. If HY birds are traveling and exploring, despite the potentially fatal costs, there must be an inherent purpose for these movements. A few functions of these explorations come to mind.

Since Black-capped Vireos migrate in the fall, it is possible these youngsters are learning the lay of the land in order to create a recognizable target when they fly back to Texas in the spring. Staying in one area before migration would certainly limit knowledge of the landscape and may cause an

individual to over- or under-shoot the targeted settling area during migration. If an individual travels and learns an area well, it is likely to increase its ability to remember important landmarks after being in Mexico for the winter.

Another possible function of these fascinating explorations may involve future breeding. Young birds may be observing AHY birds that are finishing up their breeding responsibilities. Witnessing activities such as adults feeding nestlings or fledglings would allow youngsters to collect social information pertaining to the quality of the surrounding habitat and possibly aid in choosing a future territory. During these exploratory movements, many HY Black-capped Vireos were found traveling with others of their species. Perhaps they are introducing themselves to potential mates during this time, as increasing the ground covered will increase the number of individuals that meet one another. Securing or at least becoming familiar with a mate and territory ahead of time may enable returning birds to get a head start on nesting.

There are many other possible reasons why HY birds make these exploratory movements. Through telemetry and netting studies that take place prior to migration, hopefully we will gain more knowledge about the movements of young birds. As banders, recapturing birds banded as HY provides a wealth of knowledge on this topic.

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