The Second Atlas of Breeding Birds in Ohio

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Source: The Condor, 119(2) : 356-357

Published By: American Ornithological Society

URL: https://doi.org/10.1650/CONDOR-17-10.1

THE CONDOR
Ornithological Applications
AmericanOrnithology.org

Volume 119, 2017, pp. 356–357
DOI: 10.1650/CONDOR-17-10.1

BOOK REVIEW

The Second Atlas of Breeding Birds in Ohio

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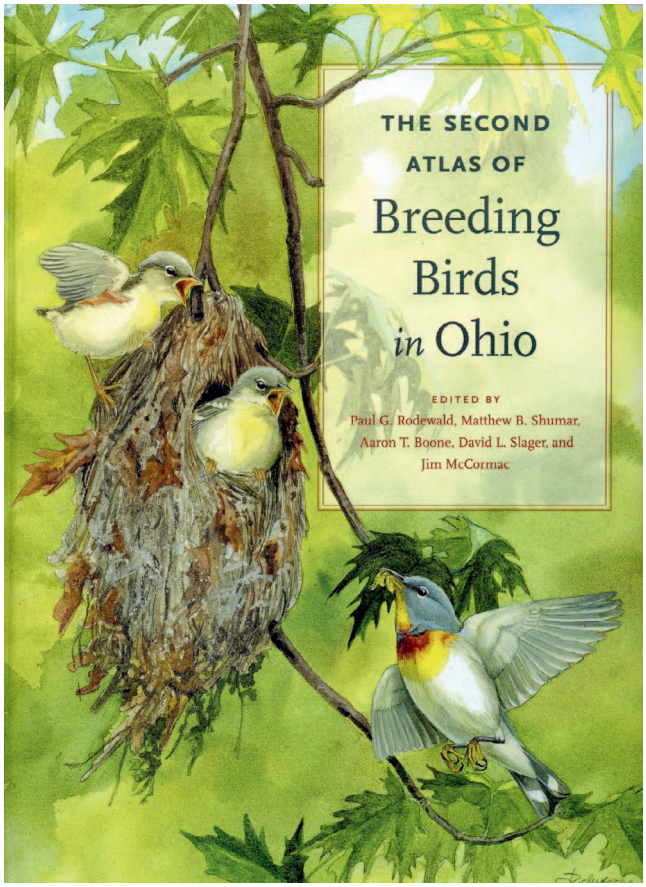
Published May 3, 2017

The Second Atlas of Breeding Birds in Ohio edited by Paul G. Rodewald, Matthew B. Shumar, Aaron T. Boone, David L. Slager, and Jim McCormac. Penn State University Press, Philadelphia, PA, USA. 2016. 600 pp., 451 illustrations, 848 maps. $64.95 (hardcover). ISBN 978-0-271-07127-5.

The *Second Atlas* is a detail-oriented compilation of more than one million bird records collected by over 900 individuals. The Atlas documents 205 species of breeding birds in Ohio from 2006 to 2011. This tome will serve as a rich resource for researchers and bird enthusiasts alike. It is also a beautiful coffee table book that blends ornithological literature, historical status and distribution of birds with estimates of statewide abundance, distribution and population trends.



Although many readers will rely on the atlas mainly for its species accounts, Chapter 2 provides a nice overview of the climate and diverse topology that affect habitat associations, current and historical land use, and environmental factors that underlie species distributions. A review of the geology and history of Ohio's five physiographic regions—along with stunning maps of Ohio's elevation, glacial deposits, and hydrology—provides background for understanding the distribution of birds within the state. The physiographic regional boundaries are included on maps for each species account to facilitate comparison with each species' distribution.

Survey design, analytical methods, general fieldwork protocols, and procedures for the collection and submission of data are provided in Chapter 3. While consistency was maintained with the first Ohio Atlas (1982–1987; Peterjohn and Rice 1991), methods were expanded to provide uniformity with other atlas projects. This chapter reviews how point counts and habitat surveys were conducted, how difficult-to-detect species (such as marsh birds and nocturnal species) were surveyed, and how data from external sources, such as the North American Breeding Bird Survey (BBS), were incorporated. While this chapter is important to the atlas, the methodological details may turn some readers away, causing them to skip the chapter and proceed straight to the species accounts. Consequently, readers might miss the guidance provided by both this chapter and Chapter 5 regarding how to interpret each species account. Referencing these methods prior to the species accounts, but then placing the methods after the accounts, might have been more useful.

In Chapter 4, the editors discuss avifaunal changes in Ohio between the first and second Atlases and expound on

potential causes of species' declines and increases in block occupancy (e.g., reintroduction, banning of pesticides, land use, and land-cover changes). The chapter examines potential latitudinal shifts for 30 highlighted species with range limits within or near Ohio and briefly details the methods used to estimate population sizes, create density maps, and initiate the first known marshbird distribution assessment for northern Ohio, laying a foundation for future work and monitoring.

Chapter 5 provides useful guidance regarding how the reader should interpret breeding evidence data as well as the population change and density maps that are presented within the species accounts in Chapter 6. The editors caution readers regarding the interpretation of the raw changes in density estimates within individual blocks, imploring them to assess these changes within the context of each physiographic region.

The species accounts in Chapter 6 form the backbone of the book. With two eye-catching photographs adorning each one, the species accounts are informative and provide interesting natural history facts that are well supported by the literature. Each account includes the current geographic range where that species has been found and reviews the historical and current distribution and status, both across the state and within physiographic regions. Abundance and population status are discussed from BBS trends and ornithological literature. For species with sufficient data, current population size estimates are provided, and approximate population sizes as of the first Atlas are back-calculated. A figure illustrating the BBS trend (with confidence intervals) is provided on the opposite page for these species. Finally, potential threats and conservation actions are identified. Each account includes maps of breeding evidence and of changes in block occupancy between atlases, as well as a table presenting the number of blocks where breeding evidence exists for both atlas projects. For species with sufficient data, a map is provided that estimates the density of singing males across the state.

Conservation efforts, from planning and monitoring to identification of conservation issues and needs, are summarized in Chapter 7. National and regional organizations involved in conservation planning in Ohio are reviewed. The roles and importance of a variety of monitoring tools are summarized, including the BBS, Ohio Division of Wildlife surveys, citizen-science programs, and atlas projects for conservation. The editors emphasize the importance of how atlas projects engage the birding community, facilitate estimates of the current status of breeding birds, and document reintroductions and extirpations of species in Ohio. Future atlas projects can aid in the identification of species with long-term declines and identify areas to focus conservation efforts.

Seven appendices provide useful information and details. Appendix A presents accounts for six species that were potential but unconfirmed breeders during the second Atlas. Appendix B provides tabular results including block totals for each species by physiographic region and a comparison of detections and changes in block occupancy during the two atlases. Appendix C summarizes data from point counts and habitat surveys used to estimate abundance, to determine the relative use of habitat types and the association between forest cover and elevation with bird detections. Bar charts indicating the raw number and percentage of total birds detected by habitat type can guide birders to habitats where a species may be observed, as well as suggest habitats that could be important conservation targets. Polynomials were fit to the data showing the relationship between species detections and forest cover and elevation; however, no information (other than eyeball estimates of the scatterplot) was provided regarding the fit of these models, which may lead to misinterpretation.

Breeding phenology is listed in tabular form in Appendix D. For each species, the median and range of dates are provided by breeding stage (nest building to fledged young). The editors note that the dates and ranges may not represent minimum and maximum dates but instead provide a general chronology that is likely to be helpful for ornithologists and birders of all skill levels. Finally, data sheets (field cards) and safe dates are provided in Appendix F.

The Second Atlas of Breeding Birds in Ohio provides an extensive assessment of the distribution of birds breeding in the state and a context that ties bird abundance to ecological landscapes, anthropogenic disturbance, and conservation. Readers can focus on the details or just enjoy the wealth of information about breeding birds and their habitats. The enormous effort to document the avifaunal biodiversity and patterns of species distributions within Ohio in this second Atlas is matched by a thorough treatment and presentation of the data that should be of interest to a broad audience. Those who enjoy watching birds in their own backyards will find interesting facts about the birds they love. Additionally, the focus on avifauna in relation to habitat associations and physiographic regions makes the book relevant to researchers, land managers, and conservation groups in and beyond Ohio.

LITERATURE CITED

Peterjohn, B. G., and D. L. Rice (1991). The Ohio Breeding Bird Atlas. Ohio Department of Natural Resources, Columbus, OH, USA.

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