

Introduction

Deborah M. Finch and William M. Block

This book reviews and synthesizes the diverse literature about ponderosa pine forests of the Southwest, emphasizing the biology and ecology of songbirds in relation to habitat changes resulting from natural events such as succession and fire, and management activities such as logging, grazing, and recreation. This product is one of the outcomes of a 1996 court-ordered settlement agreement pertaining to protection of the Mexican spotted owl (*Strix occidentalis lucida*) that included a section requiring a report on the habitat requirements of and threats to songbirds inhabiting Southwestern ponderosa pine. This book fulfills those objectives by emphasizing critical habitat issues and identifying bird species that may be sensitive to changes in availability of habitat types, structures, seral stages, and special features such as snags, aspen and oak, and old trees.

To write the chapters, we assembled a team of experts from a cross-section of disciplines representing forestry, plant ecology, avian biology and ecology, endangered species conservation, environmental history, and social sciences. Biographical sketches of authors are included at the beginning of the book. Authors were instructed to address all passerines as well as doves, hummingbirds, and woodpeckers; that is, birds with sizes and behavioral responses to habitats and spatial scales that were deemed relatively similar to passerines. A comprehensive list of common and scientific names of birds known to occupy Southwestern ponderosa pine forests is in Appendix A.

Blind reviews for the entire book were obtained from three professional societies: The Wildlife Society, the American Ornithologists' Union, and the Cooper Ornithological Society. Blind reviews were sought to strengthen manuscripts and establish the book's authority.

The book starts with a chapter that summarizes the state of knowledge of the geography, ecology and diversity of Southwestern ponderosa pine forests. Chapter 1 highlights the complexity and range of variation of contemporary Southwestern forests and sets the stage for more specialized chapters. Current human uses of Southwestern ponderosa pine forests are described in Chapter 2. An understanding of how current forests are managed and how such management may alter environmental conditions is important to identify the principal causes of changes in

songbird habitats and songbird populations. Chapter 3, an environmental history of Southwestern ponderosa pine, establishes reference conditions and an understanding of past human activities that may have influenced what we think and see today. This chapter also includes a discussion of prehistoric and historic human uses of birds, avian archaeological findings, and avifaunal accounts and checklists by early ornithologists. Such information is a useful reminder of how our knowledge of Southwestern ponderosa pine and its avifauna has evolved.

Chapter 4 launches the ornithological expedition to the heart of the book by summarizing the general biology and habitat use of songbirds found in Southwestern ponderosa pine forests. This chapter clarifies the basic patterns of habitat use by different species and groups of birds and identifies habitat elements of high management priority. Chapter 5 is a thought-provoking review and analysis of the effects of urbanization and recreation on birds of ponderosa pine. This chapter is an example of the emerging body of literature that seeks to evaluate direct and indirect impacts of human population growth on wildlife. The subject of land management effects on songbirds, with a focus on fire, logging, and grazing, is tackled in Chapter 6. Because different kinds of land management are frequently practiced simultaneously, their interactions and effects are difficult to interpret. However, the authors rise to the occasion with an exhaustive discussion and interpretation of issues. Chapter 7 is a landscape overview of issues identified in previous chapters and ends with a plea for more studies at the landscape level. The book ends with a summary of key issues and a call for more research, especially research of an experimental nature.

In conclusion, the editors and authors of this book have compiled a comprehensive review of the literature on the topic of Southwestern ponderosa pine forests and its songbird inhabitants. We hope that this publication will be a useful source of information for natural resource managers, scientists, and environmentalists and will supply the basis for new standards in research and management. In addition, we hope that this review will help to solve some of the controversies pertaining to management of forests and birds in the Southwest.

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