

Golden-winged  
Warbler Ecology,  
Conservation, and  
Habitat Management

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# Golden-winged Warbler Ecology, Conservation, and Habitat Management

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## PREFACE

Golden-winged Warblers (*Vermivora chrysoptera*) have been the subject of considerable conservation concern over the past 20 years, especially in the Appalachian Mountains region, where they have experienced an approximately 95% reduction in population numbers since the late 1960s. In response to the dramatic decrease in population size in the eastern portion of their breeding distribution, coupled with a relative lack of information about their ecology and conservation in the western Great Lakes region, considerable effort has been directed both toward gaining a better understanding of Golden-winged Warbler ecology and developing conservation strategies to stabilize or increase populations. Issues of particular concern include hybridization with closely related Blue-winged Warblers (*Vermivora cyanoptera*), succession of forest cover types resulting in landscapes lacking stands in seral stages associated with breeding Golden-winged Warblers, land-cover conversion from forest to other uses on the nonbreeding grounds, and the potential impacts of global climate change. These and other concerns about Golden-winged Warblers have led to the species being petitioned for listing under the U.S. Endangered Species Act and being afforded special conservation status in Canada and at the state level across much of their breeding distribution.

Several recent collaborative efforts, including the Golden-winged Warbler Working Group, the Golden-winged Warbler Atlas Project, and coordinated survey efforts in nonbreeding areas

in Central and northern South America, have begun to shed light on Golden-winged Warbler ecology throughout their annual cycle and provide the basis for targeted conservation activities. However, much of the information resulting from these and other efforts currently exists in unpublished reports and on websites, and has not been subjected to critical scientific review. Moreover, much of the existing information on Golden-winged Warblers derives from efforts in the Appalachian Mountains region, and whether that information adequately represents conditions in the western Great Lakes region, where a majority of the species breeds, is not known. As efforts develop to consider Golden-winged Warblers in land-management strategies and plans, and as some organizations begin to target conservation efforts toward Golden-winged Warblers, it is important for those efforts to be informed by critically reviewed science. To that end, this volume of *Studies in Avian Biology* is our attempt to compile and critically review recent information on Golden-winged Warbler ecology and conservation, to add this information to the existing peer-reviewed literature, and to make this information widely available to land managers and others in a single volume.

Our aim with this volume is to expand the understanding of Golden-winged Warbler ecology and conservation by compiling current information on breeding and nonbreeding distribution, nesting and postfledging ecology,

genetics, nonbreeding ecology, and habitat relations. We note that our volume is not a product of the Golden-winged Warbler Working Group but that many of the authors are members of that group, and we have asked them to share their vision of the future of Golden-winged Warblers and high-priority information needs in Chapter 13 of this volume. The opinions and recommendations expressed in that chapter are solely those of the chapter authors. We close our volume with an overview of the current state of knowledge about Golden-winged Warbler ecology and conservation research, and with our assessment of future directions and information needs.

We are grateful to the peer referees for their thorough and professional reviews of all manuscripts considered for this volume. We thank Nicholas M. Anich, Than J. Boves, Jeffrey D. Brawn, David R. Brown, Lesley P. Bulluck, Andrea Contina, Robert J. Cooper, Randy Dettmers, Duane R. Diefenbach, Laurie A. Hall, Douglas

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Last, we thank the Studies in Avian Biology Series Editor, Brett K. Sandercock, and editorial board for affording us the opportunity to compile this volume. We acknowledge the efforts of the authors, who by working with us and the reviewers make this volume worthwhile and credible. It is our hope that all those involved felt that they were treated professionally throughout the process of compiling this volume and that their contributions will aid in furthering understanding of the ecology of migratory birds and inform Golden-winged Warbler conservation.

PART ONE

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# Global Distribution and Status

