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INTRODUCTION

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The Willow Flycatcher (*Empidonax traillii*) is small and nondescript species, possessing neither colorful plumage nor a particularly melodious song. It generally inhabits dense, shrubby, wet, and buggy habitats where most people (other than, perhaps, professional biologists) spend very little time. Thus, it is not terribly surprising that this flycatcher, distributed across much of the lower 48 United States and in parts of southern Canada, is poorly known by the general public. Indeed, one recent editorial in a regional southwestern newspaper labeled the flycatcher as an insect. This bird is often overlooked even by birders and field biologists because its behavior and drab appearance can make it difficult to locate and identify. As a result, until recently the Willow Flycatcher received less study than might be expected given its widespread distribution.

Despite the limited attention, the Willow Flycatcher is certainly an ecologically interesting and variable species. In different parts of its range, it nests in a variety of dynamic habitats such as riparian forests, wet montane meadow shrublands, regenerating clearcuts, and recovering old-fields. It is comprised of four geographically-distinct subspecies that breed over a wide geographic and elevation range, and vary in morphology (Unitt 1987), genetics (Paxton 2000), and song (Sedgwick 2001). Although there are many ecological differences between subspecies, there is also substantial variation within each subspecies. This provides for interesting research opportunities, but also makes it difficult to generalize research findings from one breeding area or flycatcher population to another.

The Willow Flycatcher became the focus of widespread management and conservation attention in the 1980s, primarily due to concern for Sierra Nevada and southwestern populations (Serena 1982, Unitt 1987). In the early 1990s, Arizona Partners in Flight, a partnership of government and private organizations and individuals concerned about declining bird species and habitats, selected the Southwestern Willow Flycatcher as a focal species. At that time, the flycatcher was a bird species believed to be in great peril, and dependent upon one of the most threatened habitats in the southwest. Arizona Partners in Flight began a collaborative effort to conduct statewide presence/absence surveys and to describe flycatcher habitat. Data collected by this statewide effort were used by the U.S. Fish and Wildlife Service in its decision to list *E. t. extimus* as a federally endangered species.

Beginning in the mid-1990s, following the proposed and final listing of *E. t. extimus* as endangered (USFWS 1991, 1995), substantial amounts of funding became available to conduct research and management activities on this subspecies. This resulted in an explosion of field work designed to gather basic information on the status, distribution, and ecology of the Southwestern Willow Flycatcher throughout its range. Since then, literally thousands of flycatcher surveys have been conducted, and millions of dollars in research and conservation efforts undertaken. These efforts include, but are not limited to, basic presence/absence surveys, detailed demographic studies, genetics analyses, habitat characterization, breeding ecology studies, winter and migration ecology studies, habitat restoration, and conservation planning.

One of the major purposes of this volume was to provide a forum for publication of results from these recent activities. The 23 papers included herein cover a wide range of topics. Some describe the results of large-scale, multi-year research programs, and provide definitive answers to specific research and management questions. Others present intriguing preliminary results from small, short-term studies, where more detailed research is needed. All of the authors raise important questions that should be considered in future research and management efforts. Because the Southwestern Willow Flycatcher captured the initial federal regulatory attention, it became the subspecies of primary focus for research, conservation, and management activities in the western U.S. However, other populations and/or subspecies may be deserving of similar attention. Thus, although this volume deals primarily with *E. t. extimus*, it also includes chapters on other subspecies, some of which have not been as widely studied. This is important because much of the information gained from studies of one subspecies is useful for understanding the ecology and conservation challenges of other subspecies as well. Additionally, the knowledge gained through studies on Southwestern Willow Flycatchers can be applied to improve management of southwestern riparian systems and other riparian obligate species.

The papers in this volume are divided among

three basic sections, each of which begins with a summary chapter by one or more of the volume editors. Section 1 includes six chapters focusing on the status and distribution of local and regional Willow Flycatcher populations, on both the wintering and breeding grounds. The nine diverse papers in Section 2 deal primarily with flycatcher breeding ecology and behavior. Section 3 contains eight chapters with direct implications for Willow Flycatcher management, conservation, and research methods. The volume ends with a consolidated Literature Cited section. Because many of the papers published in this volume refer to data from agency reports and other unpublished sources, they cite nonpeer reviewed materials (i.e., "gray literature") that are often hard to obtain. To improve access to these unpublished materials, copies of all such gray literature cited in this volume have been deposited with the Wilson Ornithological Society Josselyn Van Tyne Memorial Library at the University of Michigan (URL: http://www.ummz.lsa.umich.edu/birds/sab26.html).

Thanks to the efforts of many individuals, and funding from many agencies, we have learned much about the Willow Flycatcher in the last 10 years. The answers and experiences gained—many of which are presented herein—have made important contributions to the field of avian ecology, helped in species- and site-specific management activities, and aided broad-scale conservation planning (e.g., the Southwestern Willow Flycatcher recovery plan). However, our data needs are still great, and we still lack basic distribution and ecological information from many parts of the flycatcher's range. This is especially true with regard to Willow Flycatcher habitat selection and use, dispersal and settlement patterns, migration and winter ecology, and the impacts of predators, parasites, disease, and human activities such as development, altered river systems, agriculture, grazing, and environmental contaminants. Furthermore, we are still in the early stages of developing effective conservation actions such as riparian habitat restoration and creation, as well as implementing monitoring programs to evaluate the efficacy of these actions. Meeting these information needs is a major challenge that will require scientific and management creativity, and substantial financial resources. Such efforts will be enhanced by continuation of the successful and collegial collaboration that has, so far, been widespread within the Willow Flycatcher research and conservation community. It is our sincere hope that this volume inspires additional efforts in that regard.

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