

INTRODUCTION

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This volume represents the culmination of the efforts of numerous individuals to synthesize current research on and management activities for the Brown-headed Cowbird (*Molothrus ater*). Intense interest in cowbirds is due to the potential negative impacts that their expanding populations may have on some host populations. The actual impact that cowbird parasitism has on host population size, however, remains controversial. That is, whereas there is little debate that cowbird parasitism can lower the productivity of individual host nests, it is not clear that such reductions have major effects on the overall productivity of host populations. It is also not clear that populations of hosts are declining and endangered species are limited by recruitment. It is also worth considering the possibility that host recruitment is impacted by factors that outweigh the influence of parasitism (e.g., predation). In addition, the efficacy of various remedies, especially cowbird control programs, has been questioned.

As outlined by Terrell D. Rich in the *Preface* to this volume, much research on these topics has been accomplished, especially in midwestern and eastern localities of North America. However, much less research has been conducted in the West. In response to the situation in the West, a symposium was organized by the Research Working Group of Partners in Flight, and California State University, Sacramento, with the goal of concentrating on cowbird research and management in western environments. Presentations from other geographic regions that could be used to guide efforts in the West were also encouraged. The result was a meeting held 23–25 October 1997 in Sacramento, California, at which about 200 individuals assembled to discuss cowbird biology. Of the 67 presentations (40 talks and 27 posters), 36 were subsequently submitted as manuscripts. Each submission was assigned to an editor, who obtained an additional 1–2 peer reviews. The 33 papers published in this volume are the result of that review process.

This volume is organized into three sections, each of which begins with a review of the state-of-the-knowledge, and a summary of the contribution that each paper makes to our knowledge of cowbirds. The three sections are:

- I. *Cowbird ecology: factors affecting the abundance and distribution of cowbirds.*
- II. *The basis for cowbird management: host selection, impacts on hosts, and criteria for taking management action.*
- III. *Cowbird control: the efficacy of long-term control and proposed alternatives to standard control practices.*

Section I, introduced and reviewed by Scott K. Robinson, contains 13 papers that consider the factors determining cowbird abundance such as habitat characteristics, the presence of livestock, and general land-use practices. Section II, summarized by James N. M. Smith, presents 15 papers on the demographics of cowbirds and their hosts, the cost of parasitism to hosts, and the basis for taking different management actions. Finally, Section III, summarized by Linnea S. Hall and Stephen I. Rothstein, contains five papers that discuss the rationale for controlling cowbirds and propose alternatives to removal practices. The paucity of papers in the final section is indicative of the lack of research into the efficacy of cowbird control methods, including alternatives to lethal control.

Simply implementing a management action, be it habitat modification, removal of livestock, or killing of cowbirds, without a rigorous study design that includes monitoring of results, is unwarranted. Similarly, it is unwarranted to even implement cowbird management actions without baseline data showing significant cowbird impacts on host species of special concern. We view this volume, and the results of the 1993 Austin meeting (see *Preface*), as building blocks towards a more comprehensive understanding of cowbird ecology, and the development of more effective management tools.

NEED FOR NATIONAL PERSPECTIVE ON COWBIRD MANAGEMENT

The 1997 Sacramento symposium culminated in a closing workshop that recommended continuing the dialog to achieve a national perspective on cowbird populations as well as improving protocols for cowbird management as gleaned from control programs. Discussion sessions at the Conference began to synthesize a national perspective on cowbird ecology and management as participants contributed diverse regional and local perspectives. To participants, the Austin and Sacramento conferences illustrated the value of an on-going forum and focal

point for integrating insights, methods, and effective practices related to cowbird management as part of endangered species recovery efforts, and more broadly as part of efforts to enhance overall passerine diversity and conservation. Scientists and managers expressed growing recognition that lessons and insights from long-standing programs should now be distilled into national policies on cowbird management. Driving the debate on such national policies is the major program being launched in the southwest by the U.S. Bureau of Reclamation to protect riparian habitat of the southwestern Willow Flycatcher (*Empidonax traillii extimus*) and to institute wider cowbird control programs. In particular, meeting participants recognized that new control programs should reflect the insights and experience of other cowbird management programs.

However, the lack of regular exchange of procedures or results among cowbird control programs and the lack of a centralized authority or designated lead agency has meant that we still have no standard procedures for optimal trapping protocol: evaluations of whether and when to initiate new trapping programs; evaluations of the effects of trapping on non-target species; reviews of trapping efficacy; or summaries of cost accounting, or cost:benefit analyses.

NATIONAL SCIENTIFIC ADVISORY COUNCIL AND CENTRALIZED DATABASE ON COWBIRD MANAGEMENT PROGRAMS

To capitalize on the emerging national perspective on methods and practices in cowbird management, a group of scientists and managers has formed the *Cowbird Scientific Advisory Council* whose goal is to provide a logistic center for cowbird information, dedicated to providing a national perspective on the need for control, and also to provide a centralized database on current control programs and practices. The council's objective is to maintain high professional standards in initiating, managing, and reviewing cowbird control programs and to facilitate effective information exchange among regional and local programs and between scientific, management, and conservation communities.

The Cowbird Scientific Advisory Council will establish a central database at Patuxent Wildlife Research Center (U.S. Geological Survey, Biological Resources Division), in Laurel, Mary-

land, where all cowbird management programs will be registered by name, geographic location, name of the responsible agency or organization, program manager, and annual cost. The council will coordinate efforts to define (1) the criteria and data that need to be addressed prior to initiation of any control program, and (2) the criteria and data necessary to evaluate the success of control programs. The resources of the database and the advice of the Council will be available to all state and federal offices considering the initiation of cowbird management programs as part of endangered species recovery efforts, or more broadly as part of efforts to enhance overall passerine diversity and conservation. The best procedures and evaluation techniques should be recognized and made available to maintain high and cost effective professional standards in all new and continuing programs. The Council can be reached by contacting either D. Caldwell Hahn or Stephen I. Rothstein (addresses within this volume).

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