
Preface

In the face of so many unprecedented changes occurring in our lives, our ecosystems, and our globe, society is more often expecting scientists to provide information that can help guide communities toward a more sustainable future. This book is our attempt to provide a framework that managers of natural resources can use to design monitoring programs that will benefit future generations by providing the information needed to make informed decisions. In addition, we offer tools and approaches that engage individuals in our society in monitoring programs. We firmly believe that people and communities who are empowered in the design and implementation of monitoring programs are more likely to use the information that results from the program, and support it over time.

There are several excellent books on monitoring animal populations, and so what does this book add to the literature? We designed this book to offer a comprehensive overview of the monitoring process, from start to finish. Although there are books that deal with sampling design and the quantitative analysis of population data, there are few that provide practical advice covering the entire evolution of a monitoring plan from incorporating stakeholder input to data collection to data management and analysis to reporting. This book strives to present an overview of this process. We also acknowledge that any such effort tends to reflect the interests and expertise of the authors, and as such, there is a distinct emphasis on monitoring vertebrate populations and upland habitats. Although many of our examples tend to focus on bird populations and forested habitats, we have made an attempt to cover other taxa and habitat types as well, and many of the recommendations and suggestions that we present are applicable to a diversity of monitoring programs.

This book was written to fill a practical need and also to embrace a set of values that we hold dear. We wanted a book that could be used in a classroom because we feel that students in natural resources programs need to know how to design a monitoring program when they enter the workforce. We also realize that many former students now in the workforce did not have that training and may find this book of value to them.

The values that we hold are for a world in which biodiversity is allowed to be maintained, to evolve, to adapt, and to flourish in the face of such uncertainties as climate change, invasive species proliferation, land use expansion, and population growth. These are huge challenges and the information needed to address them must not only be reliable but also available to all affected parties involved in decision-making processes. The stakes, at least to us, are high. The loss of biodiversity robs future generations of opportunities to experience as rich a diversity of life as the world is capable of offering them. Through the proper monitoring and management of our natural resources we would hope that a foundation is laid for this generation to do the same for the ones that follow.

Many people contributed to the material in this book. The impetus for writing this book came from an early effort proposed by Lowell Suring, Richard Holthausen, and