

## PREFACE

A large number of mark-recapture studies of Northern Spotted Owls (*Strix occidentalis caurina*) were initiated during 1985–1990, with the primary objective of evaluating trends in vital rates of the species. These studies were conducted by scientists from federal agencies, universities, private timber companies, and consulting firms, and involved repeated surveys of large areas each year to locate, mark, and reobserve or recapture resident pairs of owls and their offspring. Some studies also included radiotelemetry to examine movements of juvenile owls.

At the request of the United States Secretaries of Agriculture and Interior, a workshop was convened in Fort Collins, Colorado in December 1993 to examine all existing demographic data on the Northern Spotted Owl. The workshop focused exclusively on mark-recapture studies, and was led by Drs. K. P. Burnham, D. R. Anderson and G. C. White. A number of other scientists and analysts familiar with demographic analyses were invited to participate in developing the analytical framework and assisting with data analysis.

Invited participants included all researchers with three or more years of demographic data on Northern Spotted Owls, including researchers from seven studies conducted by federal agencies, two studies conducted by forest products companies, four studies conducted by university scientists, and one study conducted by a consulting company. The two forest products companies declined to present their data for analysis. The consulting firm presented their data for analysis but withdrew their results at the end of the workshop because they were not convinced that their data met the underlying assumptions of the

capture-recapture models used in estimating survival probabilities. Thus, results of 11 studies conducted by federal and university scientists were the focus of the final workshop report.

The initial product of the Fort Collins workshop was a summary report prepared and submitted to the U. S. Departments of Agriculture and Interior by the workshop leaders. That report was included as an appendix in agency planning documents (Burnham et al. 1994). Workshop participants felt that a more complete exposition of the workshop proceedings was appropriate, and agreed to prepare individual reports on each of the 11 study areas for publication in a peer-reviewed journal. In addition to the individual study area reports, several additional supporting papers were written, including papers on the history of the issue, general biology of the owl, methods, habitat trends, and management implications. The papers in this volume represent the culmination of this effort.

We would like to thank the editors and reviewers at the *Journal of Wildlife Management* for the very thorough and helpful reviews that they provided on many of the manuscripts in this report. Editor L. M. Smith, and Associate Editors M. J. Conroy and W. R. Clark were instrumental in this regard. We also thank all those who assisted with data analysis at the Fort Collins Workshop, including D. R. Anderson, K. P. Burnham, J. Clobert, J. E. Hines, J. D. Nichols, R. J. Pradel, E. A. Rexstad, T. M. Shenk, G. C. White, and K. R. Wilson. Viktor Bakhtin of the International Crane Foundation provided the cover art.

THE EDITORS