

Epilogue

The Scientific Basis for Lynx Conservation: Can We Get There From Here?

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As we emphasized in the Preface, this book was written under very unusual circumstances. We began the book shortly after the lynx was proposed for listing as threatened or endangered under the Endangered Species Act (ESA). Our purpose was to elucidate the scientific basis for conserving lynx for use in listing deliberations and in establishing land management policy, including a strategy for lynx conservation. The listing decision was delayed by six months so that our findings could be considered. Authors, editors, and production staff worked overtime and weekends to produce camera-ready copies of each chapter, and these were posted on the Internet for public comment during a specified time period. Draft copies of the chapters were provided to the U.S. Fish and Wildlife Service and land management agencies prior to publication so they could begin to consider our findings in their ongoing assessments and planning processes. We have, therefore, been in the unusual position of seeing some of the sociopolitical implications of our findings even as we wrote them.

The areas of primary lynx occurrence identified in Chapter 8 cover about 100 million acres (40.5 million ha). This number grows much larger if one considers all the land within the putative range of the lynx in the contiguous United States. Thus, land management policy and related decisions influenced by some or all of the information in this book could affect a vast area. Because much of this land is dedicated to multiple uses, a wide range of activities including timber and range management, outdoor recreation, and the production of other goods and services associated with public lands will potentially be affected. Through its affect on listing deliberations and agency conservation planning, the information in this book may have far-reaching implications. The question is, Is this an adequate basis for such deliberations and decisions? In other words, given the state of knowledge embodied in this book, is there a defensible set of answers to lynx conservation questions?

In answering this question, there are several important considerations. This book illustrates the kind of scientific analysis that we believe should form the basis for conservation strategies and listing decisions. We feel that most of what is currently known, and much of what can reasonably be inferred, has been incorporated into the text. The information we have provided is as reliable as it can be, and we believe it is substantive. In short, although our analyses were severely constrained by the scarcity of reliable scientific information, we have provided a measure of new information and scientific insight that surpassed our expectations given the significant knowledge gaps that exist. We believe this was made possible in part by our approach to the problem, as outlined in our introductory chapter. Perhaps the most important aspect of this approach was an interpretation of existing

information based on the explicit application of accepted ecological concepts. In this context, it is very important to discriminate between subjective opinions and carefully constructed interpretations of scientific information made in the context of generally accepted conceptual understandings. Although such interpretations may be inconclusive in the sense of lacking proof, their reliability is more easily assessed, and interpretations are open for further review.

Can we get to a defensible set of answers to lynx conservation questions based on these analyses and interpretations? The answer is yes, but only on an *interim* basis. Answers will come in the form of judgments based in part on what we have presented here. Not everyone will agree with those judgments, but our work provides a reasonable basis for developing a rationale for and evaluating the quality of such judgments. However, although we may be able to get to an interim position, we are still a long way from understanding many essential aspects of lynx ecology, and thus from essential understandings necessary to conserve lynx. As emphasized throughout this book and as summarized in Chapter 17, there is a great deal of information that we need to acquire before we can develop precise long-term land management plans that will ensure the persistence of lynx. Our lack of knowledge necessitates a less precise, and thus very conservative, approach to interim conservation measures.

The key point here is that although we believe our effort provides an adequate basis for interim conservation planning, our work must not be viewed as a surrogate for a well-developed body of reliable scientific data. In matters of conservation planning, the interpretation of limited information by even the most qualified scientists is no substitute for the organized acquisition of pertinent data. As a basis for making policy decisions, there is no reliable surrogate for a sustained commitment to scientific research, especially when the effects of human activities on species persistence are at issue. If the decision is made to list the lynx under the ESA, the current state of knowledge, including the information we have presented here, will not provide an adequate basis for a reliable recovery plan. Only with a determined and sustained commitment to a comprehensive program of research (Chapter 17) can we obtain the information needed to effectively manage and conserve lynx populations in the United States.

