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Symposium Overview

INTRODUCTION

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Forestry practices conducted since European settlement of North America have come under scrutiny, particularly with respect to their effects on the structure and functioning of ecological systems. Typically, this scrutiny has focused on vertebrate populations. This was especially evident in the case of the Northern Spotted Owl (*Strix occidentalis caurina*). Prior to 1983, numerous researchers working independently were studying the factors responsible for apparent population declines within the range of the owl. Unfortunately, the results of these studies were scattered and as an integrated whole not generally available to decision makers and other researchers. It was not until the 1984 symposium on the Ecology and Management of the Northern Spotted Owl—held 19–23 June 1984 in Arcata, California, as part of the 54th meeting of the Cooper Ornithological Society—that researchers and managers shared their findings, identified critical information gaps, and outlined directions for future research. Even though the debate continues, the initial symposium established the foundation for a concerted research effort in the years following.

The current situation with the Northern Goshawk (*Accipiter gentilis*), a raptor typically dependent on mature forests, bears an uncanny resemblance to that of the Northern Spotted Owl a decade ago. Within the past five years, evidence has arisen to suggest that populations of Northern Goshawks are declining, particularly in the western United States. Presently, the Northern Goshawk is regarded as a management indicator species of specific habitat conditions in many regions of the U.S. Forest Service and is a Forest Service Sensitive Species within the Rocky Mountain and Intermountain regions. The United States Fish and Wildlife Service has been petitioned twice within the past three years to list the goshawk as threatened or endangered under the Endangered Species Act. Likely, a third petition will be filed in the near future.

Although researchers are engaged in studies examining goshawk biology, no comprehensive, integrated research agenda underlies those efforts. Consequently, we felt that it was timely to assemble information on the biology of the Northern Goshawk (especially western populations) to assess our current state of knowledge. Thus, the symposium, The Biology and Management of the Northern Goshawk, was held on 14–15 April 1993 in conjunction with the 63rd annual meeting of the Cooper Ornithological Society in Sacramento, California.

The objectives of the symposium were (1) to assemble researchers and managers from across the country to exchange information and discuss ideas on the biology and management of the Northern Goshawk, and (2) to publish a compendium of current information on goshawk biology and management as a proceedings from the symposium.

We first contacted individuals who were conducting goshawk research. A call for papers was distributed nationally to reach researchers that we failed to contact initially. Our efforts resulted in a symposium that included 31 oral presentations.

Some of the results reported herein are from studies still in progress. Given the experience with the protracted debate over the Northern Spotted Owl, however, we felt that it was timely to publish these proceedings. To guarantee quality in these proceedings, all papers were required to go through a rigorous peer-review process and were held to the standards applied to submissions to *The Condor*. These 22 papers summarize the current state of knowledge on goshawks within the scientific and management communities. Sharing this information will allow researchers to critically evaluate past work, identify knowledge gaps, and develop strategies to focus on those needs in future studies.

These proceedings are presented in three sections. *Research Approaches and Management Concepts* contains overviews of research and management for goshawks, forest management to provide goshawk habitat, and field techniques. *Resource Ecology* focuses largely on habitat use at spatial scales ranging from landscapes to microhabitats. Also included are food habits papers. The section on *Population Ecology* includes papers on reproductive rates, survival rates, turnover, and numerical responses of goshawks to prey abundance.

This collection of papers represents the current state of knowledge on Northern Goshawks. Our intent is for these proceedings to serve as a springboard from which researchers will criti-

cally evaluate their work and that of others, and provide direction for future research. Only through such actions can researchers provide the information needed to guide timely and appropriate management for the species.

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