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# Southern California Mountains and Foothills Assessment

Habitat and Species Conservation Issues

General Technical Report  
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**Abstract**

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*The Southern California Mountains and Foothills Assessment: Habitat and Species Conservation Issues* provides detailed information about current conditions and trends for ecological systems and species in the region. This information can be used by land managers to develop broad land management goals and priorities and provides the context for decisions specific to smaller geographic areas. The assessment area covers 6.1 million acres, of which 56 percent are national forest system lands. Over eighteen million people live in the coastal basin bordering the assessment area. As compared to historic conditions, mountain and foothill ecosystems in this region have undergone dramatic changes. Forested landscapes are more susceptible to stand-replacing fires. Invasive non-native species have become widely established, causing a decline in habitat capability for many native plants and animals. An extensive network of dams and diversions has altered aquatic systems. Some areas of high ecological integrity remain and can serve as building blocks for restoration. Biological diversity is not uniformly distributed across the landscape; rare species in particular tend to be concentrated in certain habitats. Key areas of high ecological integrity and rare species assemblages are identified in this report. This assessment provides a rich information base, including over eighty mapped themes with associated models and databases, from which future decisions can benefit.

**Retrieval Terms:** Southern California, ecosystem, biodiversity, land management

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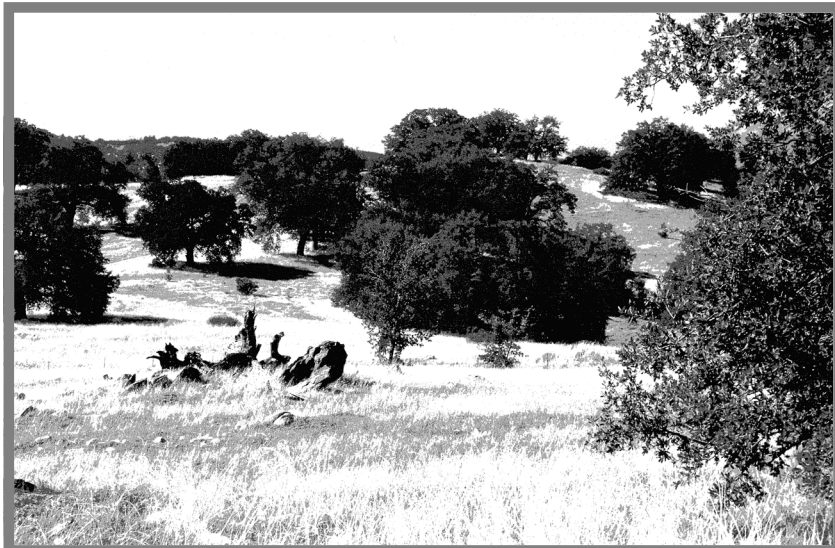
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John R. Stephenson and Gena M. Calcarone

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## Preface

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This document provides a synthesis of ecological information on the mountains and foothills of southern California. The information comes from a wealth of sources, many of which are unpublished or in technical reports that are difficult to find. By compiling this information in a single reference, we hopefully have furthered its usefulness and heightened awareness of the key issues affecting the ecological integrity of this region. It is our belief that to effectively move forward we must first assemble and understand the existing foundation of knowledge and then build off it.

We thank the Southwest Ecoregion Planning Group (SWEPG) for identifying and promoting the need for this Assessment and the Ecosystem Conservation Staff of the USDA Forest Service, Pacific Southwest Region for providing the funding. The four Forest Supervisors of the southern California national forests – Anne Fege, Jeanine Derby, Michael Rogers, and Gene Zimmerman – provided the leadership to initiate and sustain this effort. The Assessment never would have been completed were it not for their guidance and support.

Many people assisted in the development of this Assessment, but a few were particularly instrumental. Deveree Volgarino provided a great deal of leadership in the compilation of information on botanical issues. Her ever upbeat and helpful demeanor also inspired us. Greg Nichols was instrumental in the development of our GIS database and provided invaluable assistance in conducting spatial analyses and mapmaking. Milan Mitrovich gathered, synthesized, and analyzed all kinds of information for us; his ability to be equally effective at strenuous field work, library research, repetitious data entry, and challenging statistical analysis was outstanding.

Other individuals generously contributed material that was directly used in the report. Laura Merrill wrote the sections on forest insects and diseases. Leigh Sevy synthesized information on the role of defensible fuel profiles in fire management. Melody Lardner, Diane Freeman, Mike Foster, and Kirsten Winter contributed sensitive species evaluations that were used extensively in the species accounts. Thanks to all of you.

The Assessment Analysis Team played a key role in identifying, describing, and prioritizing land management issues. The multidisciplinary and interagency composition of this group helped provide a wide range of perspectives, which led to a balanced evaluation of the subject matter. We greatly appreciate the work of this group and the guidance they provided. A special thanks to Tom White for outlining a structured process to work through the issues as a group and for facilitating many of the discussions.

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In the course of this project we conducted several field studies to gather additional data. We thank the National Biological Survey (now the Biological Resources Division of the U.S. Geological Survey) and Bat Conservation International for providing grants that made this field work possible. We especially thank the people who spent long days and nights in the field collecting data. Diana Simons, Drew Stokes, Karen Miner, Patricia Brown, Robert Berry, and Lisa Underwood collected data on the distribution and abundance of bats. Robert Fisher, Ed Ervin, Lisa Underwood, and Sharon McKelvey monitored pitfall traps to gather information on the distribution and abundance of amphibians and reptiles. Jack Levy examined the distribution and habitat associations of the Laguna Mountain skipper butterfly. Milan Mitrovich and Zarine Dorabji resampled historic vegetation plots to assess change in forest structure and composition.

Finally, we extend a special thanks to Lark Burkhart for her editorial assistance and for making this document pleasant to look at and easy to read.

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