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# Planning for Biodiversity: Bringing Research and Management Together

Proceedings of a Symposium for the South Coast Ecoregion

February 29 - March 2, 2000

Pomona, California



## **Abstract**

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Southern California, recognized as a major center of biodiversity, contains some of the most diverse habitats of any landscape in North America. The ever-expanding human population of the region desires land, water, resources, and recreation, creating conflict with the habitat requirements of many rare species. Managing resources in a way that maximizes biodiversity in remaining habitats, while providing opportunities for other appropriate uses of the land, presents a formidable challenge, requiring coordination between scientists and resource managers. The papers in this proceedings volume reflect the breadth of issues facing the science and management communities in southern California, ranging from the threats of fire, air pollution, grazing, exotic species invasion, and habitat loss on native habitats and sensitive species, including birds, mammals, reptiles and amphibians, to the role of mycorrhizal fungi as indicators of biological change.

*Retrieval Terms:* air pollution impacts, biological diversity, California south coast ecoregion, fire management, habitat management, rare species

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# **Planning for Biodiversity: Bringing Research and Management Together**

**Proceedings of a Symposium for the South Coast Ecoregion**

**Barbara E. Kus and Jan L. Beyers**

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### **Disclaimer**

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## **Introduction**

Southern California contains some of the most diverse habitats of any landscape in North America and is recognized as a major center of biodiversity. It is also home to an ever-expanding human population, with needs for land, water, resources, and recreation that conflict directly with the habitat requirements of many species. As a result, this region has more endangered and threatened species than any other area in the continental United States, and once-extensive natural communities, many of which are unique to the ecoregion, have been reduced to mere remnants.

Managing resources in a way that maximizes biodiversity in remaining habitats while providing opportunities for other appropriate uses of the land presents a formidable challenge requiring coordination between scientists and resource managers, yet few opportunities exist for regular exchange of information and ideas between these groups. In response to this need, the U.S. Geological Survey and the USDA Forest Service partnered to co-host a symposium on “Planning for Biodiversity: Bringing Research and Management Together,” held February 29–March 2, 2000 at the Kellogg West Conference Center, California State Polytechnic University in Pomona, California. The goal of the 3-day conference was to identify the current status of our knowledge and gaps in our understanding of regional biodiversity and ecosystem processes, present and future threats to species and habitats, and effective monitoring strategies for southwestern and central coastal California resources. Through a program of 52 invited presentations, 18 contributed posters, and 10 focused discussion groups, the conference created an environment for formal and informal communication among the 300 attendees about the results of scientific studies and their application to resource conservation and management, as well as the information needs of managers responsible for determining and implementing management on the ground.

Of the 45 technical papers presented at the conference, 14 are included in this volume. Authors were asked to synthesize the current state of knowledge regarding their topic and identify areas needing future research. Each paper was assigned to an editor for review and received one to three additional peer reviews. Expanded abstracts of nine posters also were reviewed by the editors and included. The topics addressed in the papers and poster abstracts reflect the breadth of the conference presentations and the issues facing the science and management communities, ranging from the threats of fire, air pollution, grazing, exotic species invasion, and habitat loss on native habitats and sensitive species of birds, mammals, reptiles and amphibians, to the role of mycorrhizal fungi as indicators of biological change.

An outgrowth of the symposium was the recognition that periodic conferences, while important for facilitating information exchange, are by themselves not enough to maintain the ongoing dialog among conservationists needed to effectively apply resources to accomplish mutual goals. As a result, the “San Diego Partners in Biodiversity” was formed, a network of scientists, field biologists, natural resource managers, and others working toward conservation of biodiversity. Building upon the relationships established at the conference, this group now meets monthly to inform and educate each other about activities, opportunities, and needs relating to resource conservation. It is our hope that this type of coordination and collaboration continues to expand and that this volume contributes to that spirit.

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