



THE CONDOR

An International Journal of Avian Biology

Published by the Cooper Ornithological Society

David S. Dobkin, Editor
Hugh D. W. Powell, Managing Editor
Steve C. Edwards, Editorial Assistant
Telephone & Fax: (541) 382-1117

High Desert Ecological Research Institute
15 S.W. Colorado Avenue, Suite 300
Bend, OR 97702 USA
E-mail: condor@hderi.org

NEWS RELEASE

November 3, 2003

Contacts: Steven Knick (USGS), 208-426-5208

David Dobkin (High Desert Ecological Research Inst.), 541-382-1117

Are Sagebrush Habitats and Their Birds Teetering on the Edge?

Sagebrush landscapes – a scene familiar to many of us from our travels in the West – are changing dramatically, resulting in the rapid decline of many native shrubland and grassland bird species, including the Sage-grouse and Brewer’s Sparrow. This alarm is sounded in a newly published article, “Teetering on the edge or too late? Conservation and research issues for avifauna of sagebrush habitats” that appears in the November issue of the science journal *The Condor*. The report reviews the problems facing sagebrush habitats and the native birds that depend on these habitats for survival, and was written by science experts from the U.S. Geological Survey (USGS), the High Desert Ecological Research Institute (Bend, Oregon), the Washington Department of Fish and Wildlife, and the University of California (Riverside). The authors were members of the Cooper Ornithological Society Committee on Conservation of Sagebrush Ecosystems.

Warnings began appearing over a quarter of a century ago about overuse and loss of native sagebrush habitats in the western United States and the consequences for birds that depend on these habitats for all or part of their livelihood each year. Steve Knick, USGS scientist and lead author on the article, noted that many of the troubles facing this ecosystem are not easily perceived. “The reality is,” said Knick, “that almost all sagebrush habitats are suffering consequences of heavier use than they can take. At present, we don’t have a handle on how to address the problems existing in this habitat because they are so diverse and widespread.”

David Dobkin, Director of the High Desert Ecological Research Institute in Bend, Oregon and another author on the report, noted that when habitats change, wildlife populations also tend to change. Today, he said, populations of many species of shrubland and grassland birds are declining, some severely. The Gunnison Sage-grouse, for example, is a candidate for listing under the Endangered Species Act and six petitions have been filed to list the widespread Greater Sage-grouse. A decision by the U.S. Fish and Wildlife Service about listing the Greater Sage-grouse across its entire range is due within a year, and if the decision is made to list, Dobkin said that it would result in “enormous” consequences for the use and management of 110 million acres in the western United States covered by sagebrush habitats.

The causes underlying the changes and loss of sagebrush habitats are largely human-related, according to the article. Because less than 3 percent of the entire sagebrush habitat is protected in parks or reserves, the resources in almost all sagebrush ecosystems are heavily used. Some uses, such as mining, energy development, urbanization, or conversion of sagebrush habitats to agriculture cropland, vary regionally, but others, such as livestock grazing, are widespread across the entire range of sagebrush. All human uses, without proper management, can significantly affect sagebrush birds by fragmenting or completely removing their habitats, the authors noted. They write that restoring these habitats will be difficult or, in some cases, impossible, either because the habitat has already been converted or because many of the essential components required by birds, such as cover to protect nests against predators, are no longer present.

The paper also points out that individual land uses often interact synergistically, compounding their negative effect on habitats and birds. For example, land uses that cause spread of fire-dependent invasive plants, such as cheatgrass, can result in increasing the size and frequency of fires that ultimately convert even more sagebrush habitat to grasslands dominated by species that are not native to the western United States.

The authors recommend four primary areas in which future research should be focused to improve the chance of conserving birds living in sagebrush ecosystems. “First and most critical, we need to know precisely how our use of sagebrush habitats affects the dynamics of these systems,” said Knick. “All uses, whether livestock grazing, mining, energy development, or even treatments by land managers to improve habitats, influence the way the system functions. These uses are not necessarily negative, but conducted improperly can create habitats that are unsuitable for native birds and other native wildlife.”

Three other research areas recommended were to identify those habitat components most critical to birds, to design better survey methods and techniques to estimate bird population trends, and to determine the importance of wintering grounds and migration pathways for these birds.

According to the report, even though the research will improve land managers’ ability to understand and conserve birds in sagebrush ecosystems, the primary challenge “may be to convince our society of the intrinsic value of sagebrush ecosystems and their unique biodiversity. This change in mindset will have to be followed by a firm commitment by federal and state agencies to provide the resources necessary to resolve issues presented in this paper. Only with this concerted effort and commitment can we afford to be optimistic about the future of sagebrush ecosystems and the birds that depend on them.”

This report is the first in a series of *Issues in Conservation* to be published in *The Condor*, the international peer-reviewed journal of the Cooper Ornithological Society. David Dobkin, the Editor-in-Chief said, “We hope that this broad but detailed analysis will be a crucial step toward raising awareness in the scientific community, among land managers, and, ultimately of the American public, about the potentially overwhelming challenges to ecological integrity and function faced right now by these vast western landscapes.”

The published Abstract of *The Condor* paper is accessible on-line at <http://www.cooper.org> (follow the links to *The Condor* and then to Forthcoming Issue). The complete article is available electronically from the contacts listed above.