

How can you be part of the solution?

Foundations. Consider us in your grantmaking activities and provide critical support for the unique focus of our research, long-term monitoring, habitat management, and educational programs.

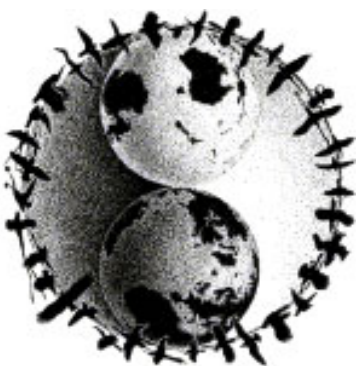
Individuals. Become a member of The Institute for Bird Populations. For a low annual subscription fee, you can receive the journal *Bird Populations*. Also, consider making a tax deductible donation, big or small, to help us conserve these beautiful creatures.

The Institute for Bird Populations is an independent California nonprofit corporation with 501 (c) (3) tax-exempt status. All contributions are tax-deductible to the fullest extent allowable by law.

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The Institute for Bird Populations

Fostering a global approach to studies of bird populations.



Our home planet is in danger.

Earth's biosphere is under siege from severe environmental problems linked to global climate change, widespread and accelerating habitat loss and degradation, and toxic pollution. The current worldwide species extinction rate may rival any major extinction event in history.



The global scientific community has established too few effective biomonitoring programs for determining the

impacts of these threats to animal populations. Without data on population changes and the vital rates that drive them, we stand little chance of convincing governments, businesses, and citizens of the world that we CAN and MUST change our environmental habits - before it is too late.

Birds are "canaries in the coal mine."

Because they are so sensitive to changes in their surroundings, birds are excellent indicators of the effects of environmental change.

- Birds are abundant and diverse in most ecosystems. Active by day, they are easily observed and counted.
- Most birds breed during a discrete season, making it easy to monitor their productivity.
- Their medium-length lifespans help us determine their survival rates.
- The beauty of their plumage and song makes them favorite subjects of human observation, study, and love.



The Institute for Bird Populations provides information that promotes solutions.

Information is the key to solving many of our environmental problems. Information empowers scientists to determine the causes and effects of environmental changes. It empowers governments and businesses to understand how economic and ecological factors together cause environmental problems. Finally, information helps people act responsibly to promote a healthy environment.

Information on the vital rates (productivity and survival) of bird populations provides the best means for determining the causes of population declines, for designing management responses to reverse the declines, and for monitoring the effectiveness of the management actions implemented. Because many threats to bird populations are global in scale, the required information must also be global in scope.

The Institute for Bird Populations is committed to gathering and sharing information about global changes to bird populations.

Within the U.S, we currently monitor birds on five national parks, seven national forests, 20 military installations, and several major nature reserves. Numerous federal and state agencies use our protocol to monitor birds for their own purposes on public lands. Many nongovernmental organizations and individuals use our protocol to monitor their own private lands.



Cover Illustration: MacGillivray's Warbler
by David Sibley

Black-and-White Warbler
David Sibley

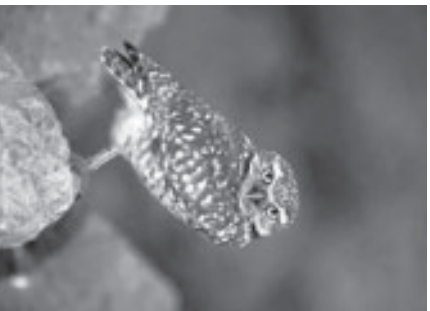
Projects of The Institute for Bird Populations

■ **The MAPS Program (Monitoring Avian Productivity and Survivorship).** Our flagship project is a cooperative effort among public agencies, private organizations, and individual bird banders to operate a continent-wide network of over 500 constant-effort mist netting stations. The purpose of these stations is the long-term monitoring of the birth and death rates and population dynamics of more than 100 landbird species.

■ **Sierra Nevada Research and Conservation Program.** We study the habitat needs of landbirds in the Sierra Nevada mountains and investigate how current land management practices affect bird populations and community dynamics. Our goal is to identify management practices that best support diverse communities of viable bird populations.

■ **Avian Inventory Program.** We collect baseline information on bird species diversity, distribution, and abundance on several national parks and other public lands. Land managers can use this information for public education, future monitoring, and analysis of the impacts of future management actions.

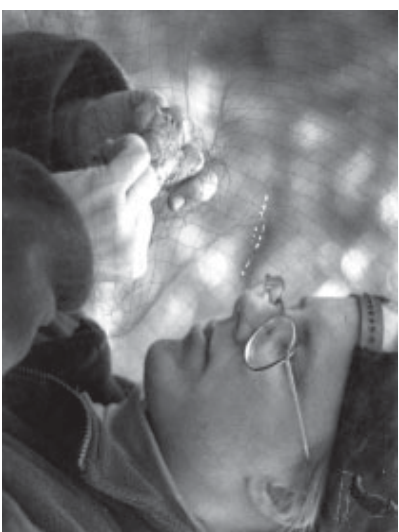
■ **Tropical Program.** Recent results from MAPS indicate that poor physical condition of birds on their wintering grounds and/or low survival are major causes of population declines. The MosI (Monitoreo de Sobrevivencia Invernal - Monitoring Overwintering Survival) Program, our newest project, aims to establish a network of banding stations throughout Mexico, Central America, and the Caribbean. This project will address the current lack of information about how avian survival in the tropics is affected by weather and habitat characteristics, information that is critical for reversing population declines. MosI is an outgrowth of our five-year pilot study on wintering landbirds at Guantanamo Bay, Cuba.



Burrowing owl in California. Photo by Don Desjardín.

■ **Burrowing Owl Program.** We intensively study the population ecology of this threatened species in its four major habitats in California using call surveys, bird banding, nest monitoring, radio telemetry, and chemical contaminant analyses. These results, plus those of a state-wide survey we conducted during the 1990s, will provide the scientific basis for the development of a state-wide, multi-partner conservation strategy.

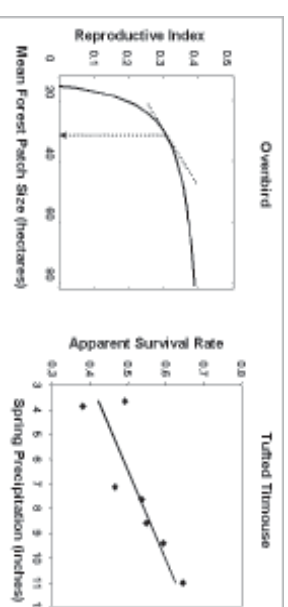
■ **Bird Populations Journal.** A peer-reviewed annual journal of global avian demography and biogeography, available by subscription. The journal publishes original research plus reports from many major bird monitoring projects worldwide.



A MAPS intern extracts a bird from a mist net.

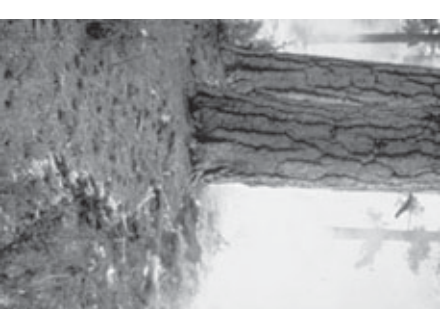
Turning Knowledge . . .

To understand how bird populations change over time in response to management, we must understand how the birds are affected by their environment. In MAPS, for example, we collect data on birth and death rates of various species and develop statistical models of how those rates relate to environmental factors such as habitat structure, forest composition, and weather.



With our bird banding data, we can relate estimates of birth and death rates to habitat structure and weather.

With this understanding of how avian vital rates relate to habitat, we formulate species-specific management plans that focus on correcting the low birth rate or high death rate, whichever is responsible for the population decline of each target species. We then work with land managers to modify or conserve appropriate habitat, making the most out of the always limited conservation dollar.



Land managers use low-intensity fire to improve a pine forest habitat.

. . . Into Action

Our Primary Goals

- To develop, coordinate, and conduct scientific research and standardized monitoring of birds and their environments. The Institute focuses on programs that can
 - be applied on a global scale,
 - provide for the long-term monitoring of birds' vital rates and population trends,
 - help identify causes of bird population change,
 - help formulate management plans to reverse population declines and maintain stable populations, and
 - help evaluate the effectiveness of management efforts.
- To educate and train people in the U.S. and abroad in avian research and monitoring methods that clarify the ecological effects of environmental change, and that lead to sound conservation strategies.
- To serve as a global forum for discussing regional and continental changes in the abundance, distribution, and ecology of birds, and the causes of such changes.



What one conservation professional says about a proposal for using MAPS data to reverse avian population declines:

“This superb proposal links science and conservation in an exceptionally well conceived way. This is how it is supposed to work. I hope you will use [this proposal] as a standard by which others might be compared.”

Terry Rich
Partners in Flight National Coordinator