

INTRODUCTION

Overview of Partners In Flight

Continental and local declines in numerous bird populations have led to concern for the future of migratory and resident bird species. The reasons for declines are complex and varied. Degradation, modification, fragmentation, and loss of breeding habitat; loss of wintering and migratory habitat; and nest parasitism have been implicated as the most devastating causes of population declines. Scientists and the concerned public agreed that a coordinated, cooperative conservation initiative focusing on nongame landbirds was needed. In late 1990, the National Fish and Wildlife Foundation brought together federal, state, and local government agencies; foundations; conservation groups; industry; the academic community; and international interests to form a program to address the problem. Thus, Partners In Flight (PIF) was conceived as a voluntary, international coalition of government agencies, conservation groups, academic institutions, private businesses, and concerned citizens dedicated to “keeping common birds common” and reversing the downward population trends of declining species. Wyoming Partners In Flight (WY-PIF) is the state working group of PIF, and was officially organized in 1991. Active participants include personnel from the Wyoming Game and Fish Department, Bureau of Land Management, U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, Bureau of Reclamation, the University of Wyoming, The Nature Conservancy, Teton Science School, Audubon Wyoming and state Audubon chapters, private landowners, and numerous volunteers.

The goal of Partners In Flight is to conserve, restore, or enhance populations of nongame landbirds and the habitats upon which they depend. This will be achieved by directing resources to landbird and habitat conservation through cooperative efforts in the areas of inventory and monitoring, research, management, education, and international cooperation, and will include all uses and users of the land.

Partners In Flight efforts are directed by several basic principles:

- Conservation of birds and their habitats while they are still common, thereby avoiding the risks and costs associated with endangered species.
- Conservation of habitats, which harbor multiple species of birds and other biological diversity, rather than single species.
- Conservation based on sound science.
- Comprehensive conservation actions that address critical needs on breeding grounds, nonbreeding areas, and the migratory routes that connect them.
- Conservation that stresses maintenance of natural conditions and compatible economic management of natural resources.

- To build groundbreaking partnerships within which federal and state agencies, private conservation groups, academia, and industry can work together for bird and habitat conservation.
- To promote an informed, proactive constituency of people who are concerned about bird conservation and will voluntarily take action to protect birds and their habitats.

Bird Conservation Planning

Geographically based conservation plans were identified as necessary for nongame landbirds, much as the North American Waterfowl Management Plan directs efforts and prioritizes funding for waterfowl. “The Flight Plan” forms the strategy for coordinating, developing, and writing Bird Conservation Plans at state, regional, and national levels. An international planning effort is also underway but, understandably, is more difficult to coordinate.

Bird Conservation Plans are being completed for about 60 geographic units nationwide; mostly physiographic areas and Bird Conservation Regions, plus the 12 western states. The goal is then to compile the 60 plans into an umbrella National Bird Conservation Plan, which will serve as a means to generate action and resources. This compilation will include an assessment of the adequacy of each of the component plans.

A brief summary of how to accomplish conservation planning for birds follows. For a more detailed explanation, refer to “The Flight Plan”, later in this chapter.

- 1) Rank species in order of priority from the updated Partners In Flight Priority Database (Carter et al. 1997). Identify the priority habitats for these species and, where feasible, place the priority species into groups based on habitat needs for each bird community or “suite”. Then determine the highest priority habitats in the state.
- 2) Determine specific habitat needs and develop habitat and population objectives for each species or suite of species. Spread out population centers into suitable habitat types, or “source” habitats. Source habitats and source populations should be identified for each PIF physiographic area, and also “sink” habitats and populations, if known.
- 3) Develop Best Management Practices for each priority habitat or habitat group in the state; nominate global, continental, national, and/or state Important Bird Areas; and identify state Bird Conservation Areas.
- 4) Implement the Plan on-the-ground, monitor and evaluate its success, and modify the Plan as needed.

The Wyoming Partners In Flight Bird Conservation Plan identifies priority species, priority habitats, and relative problems and issues; establishes biological objectives (population objectives and habitat objectives); provides recommendations, including Best Management Practices, monitoring, research, education, and outreach; and includes Plan implementation and evaluation.

All PIF Bird Conservation Plans are intended to complement the successful North American Waterfowl Management Plan and the recently initiated National Shorebird Conservation Plan and North American Colonial Waterbird Conservation Plan. Resident game birds are often not covered by these Plans because state agencies and conservation groups are addressing the needs of those species. However, it is ecologically and economically sensible to coordinate with representatives of other bird groups when implementing actions. Discussions of waterfowl species, shorebirds, colonial waterbirds, and/or resident game birds may be included in Plans as they contribute to the ecological picture of the nongame landbird species or habitats being addressed.

Wyoming Partners In Flight recognizes that there are gaps in our knowledge of Wyoming's birds. However, our intention is to assemble the best and most current scientific information into a format that land managers and landowners can use to put ideas into action. When new information becomes available, either through monitoring or research recommended in this Plan or from information previously overlooked, it will be incorporated into our recommendations and reprinted as a new version. Thus, we consider this a dynamic document in which adaptive management will play a large role.

This Bird Conservation Plan was developed by many people offering input in planning meetings and as reviewers. Planning meetings were open to anyone who had an interest in bird conservation and were designed to solicit information from participants that would form the core of this Plan. An important result of planning meetings was to capture scientific data and personal observations that were not available in the scientific literature. This information is especially important because local variations can dictate different needs and approaches for conservation. Again, because this is a dynamic document, any additional information that will add value to this Plan is welcome. Comments can be directed to: Andrea Cerovski, WY-PIF Chair, Wyoming Game and Fish Department, 260 Buena Vista, Lander, WY 82520; 307-332-7723 ext. 232; 307-332-6669 (fax); Andrea.Cerovski@wgf.state.wy.us.

The Flight Plan

THE PARTNERS IN FLIGHT BIRD CONSERVATION STRATEGY

An abundance of wild birds contributes to ecosystem health and provides economic, recreational, scientific, and aesthetic values for society. Fostering cooperative, voluntary, and coordinated habitat management on private and public lands that will lead to the conservation of avian diversity throughout the Western Hemisphere is the subject of the *Partners In Flight* Bird Conservation Strategy, or simply, “The Flight Plan”.

Partners In Flight and the Bird Conservation Strategy are common sense approaches to the conservation of birds and their habitats. This Strategy initially addresses only nongame land birds in the United States and depends upon conservation decisions and actions taken at local and state levels. However, it lays the groundwork for international cooperation on long-term conservation of all birds throughout this hemisphere.

Introduction

The *Partners In Flight* Bird Conservation Strategy summarizes the collective actions that are being taken and that are necessary for the conservation of birds. The Strategy provides the framework for Bird Conservation Plans that set conservation priorities and specific objectives for bird populations and habitat for every state and ecoregion in the country. Furthermore, the Strategy lays out the means by which these Plans can be implemented. This process involves an unprecedented level of voluntary cooperation and coordination among state and federal agencies, private organizations, industry, and the public. The power in the process lies in the synergy that builds when such diverse and committed groups work together for a common goal.

Basic Principles of The Flight Plan

- conservation when it should be done -- before species become endangered
- conservation based on sound science
- conservation that stresses both healthy ecosystems and wise management of natural resources
- local and timely conservation within the context of large-scale objectives and long-term plans
- conservation of habitats in breeding, migration, and wintering areas
- an informed constituency of people concerned about bird conservation
- groundbreaking partnerships that foster voluntary cooperation among public and private landowners

Development of Bird Conservation Plans will be a simultaneous and iterative “bottom-up” and “top-down” process in which actions are decided upon and taken at grassroots and local levels in the context of priorities set at larger geographic scales. Coverage will be geographically comprehensive, with plans developed for each ecoregion and state. Although variability among plans reflecting local conditions and interests will be expected and encouraged, regional and national level plans will be developed to assure comprehensive attention to priority issues.

Focused, cooperative, and voluntary habitat conservation on a landscape level is the key to bird conservation. A concentration on habitat will improve conditions for all birds, whether migratory or resident, endangered or common, game or nongame, and will contribute to the protection of other animals, plants, and communities. Success will not be possible without recognition of landowner objectives and encouragement of compatible uses of the land.

Ultimately, the Strategy can be applicable to the conservation of the over 800 species of birds in the continental United States and close to 4,000 in the Western Hemisphere. Many of these birds bind our nations together through annual migrations and their dependence on the conservation of habitats across international boundaries. As plans become more international and taxonomically comprehensive, they will build on the success of international treaties; *Partners In Flight*; the North America Waterfowl Management Plan; the Western Hemisphere Shorebird Reserve Network; and the many conservation efforts of the federal government, state wildlife agencies, private conservation

organizations, and industry. Each of these programs will retain its own special identity and constituency, yet each will become more effective through greater collaboration and cooperation.

The Conservation Process

The *Partners In Flight* Bird Conservation Strategy consists of four steps that result in the development and implementation of Bird Conservation Plans.

Step I. Identify species and habitats most in need of conservation (or, “what we have”)

The first step is to identify birds most in need of conservation action. Priorities are set within biologically appropriate conservation planning units, such as physiographic areas (e.g. Mississippi Alluvial Plain), watersheds, or ecoregions (e.g. shortgrass prairie). The nature of planning units will vary geographically, depending upon the distribution of birds and their habitats and locally achieved consensus decisions.

Within a planning unit, each species is prioritized according to a set of criteria including population trends, size of geographic range, and threats on the breeding and nonbreeding grounds. The values assigned to each species provide an index of conservation need. High priority species can be grouped into species suites that tend to occur together and presumably respond similarly to habitat conditions and management practices.

Step II. Establish population and habitat conservation objectives (or, “what we need”)

There are two parts to this step:

- Describe the habitat conditions and management practices favorable to priority species or species suites
- Set objectives for the nature, extent, and distribution of favorable habitat conditions or populations of priority birds

In the first part, current principles of conservation biology and knowledge of the natural history of birds and the ecosystems they inhabit are used to describe conditions that will foster long-term maintenance of healthy populations. This process can result in recommendations that may include the number of birds necessary to sustain a population, the amount and configuration of habitat that a population needs, habitat characteristics that should be maintained within habitat blocks, and the temporal and spatial stability of habitat conditions.

Turning an understanding of the needs of birds into specific landscape-level conservation objectives is perhaps the most important, and often conceptually the most difficult, component of the planning process. Objectives must be set relative to a baseline understanding of the current status of bird populations and habitat conditions. The nature of objectives will vary among planning units on the basis of geography, land use history, and conservation opportunities, and may be phrased in terms of numbers of populations or habitat patches, densities of

birds, or population trends. Although *Partners In Flight* attention has been largely focused on breeding terrestrial birds in the United States, these objectives must include a broader consideration of potentially important migration or wintering conservation issues. Each conservation planning unit must be evaluated as a landscape rather than as a collection of independent sites, and each unit must meet its bird conservation responsibilities within the context of regional and international needs.

Conservation objectives must be set within the context of the economic and sociological factors that influence conservation potential, particularly landowner objectives. This strategy cannot succeed without the voluntary and eager participation of private landowners. Objectives must also ultimately be integrated with other conservation issues. Birds are a necessary but not sufficient component of planning for the conservation of biological diversity.

Step III. The Bird Conservation Plans: Actions to meet objectives (or, “how to do it”)

Three overlapping concepts capture the entire range of actions that have been or can be taken to enhance the conservation of birds. There have been and continue to be successes in on-the-ground application of these concepts; Bird Conservation Plans will specifically and efficiently target them for the accomplishment of defined landscape-level objectives.

1. Landscape Prescriptions and Best Management Practices -- Many birds can benefit more from the application of Prescriptions across landscapes than from activities limited to designated sites. An example could be maintenance of certain quantities of land in various successional stages across a region. The exact sites for particular conditions will vary over time. Best Management Practices can be modifications of standard management practices, developed within landowners' varied operational and economic constraints, that improve conditions for birds in small but important ways. Examples include grazing and burning programs that benefit prairie birds, timber management programs that benefit forest birds, and maintenance of woodlots for in-transit migrants.
2. Bird Conservation Areas -- These are large areas that sustain or are capable of sustaining healthy populations of birds. Bird Conservation Areas may be single land holdings specifically designated for conservation purposes (such as a Wilderness Area of a National Forest). More typically they include multiple cooperating landowners who voluntarily coordinate their management practices to provide a constant base of habitat needed by birds. The nature of bird conservation efforts in these areas must be compatible with other social and economic priorities.
3. Important Bird Areas -- Sites that are critical to rare species or large concentrations of a species should be designated and managed as Important Bird Areas. Examples include

waterfowl (Laguna Atascosa National Wildlife Refuge, Texas) and shorebird (Delaware Bay) concentration areas; seabird nesting cliffs (Pribilof Islands); islands inhabited by threatened, endemic species and subspecies (Santa Cruz Island, California); endangered species areas (Kirtland's Warbler breeding habitat); and key landbird stopover sites (High Island, Texas).

Step IV. Implement Bird Conservation Plans and monitor progress (or, "do it!")

Completion of the first three steps in this Strategy will result in a Bird Conservation Plan. Implementation is the final and most challenging step. Although the biological objectives in the Plans should be set within conservation planning units, implementation may be more effectively accomplished within politically-defined units through the efforts of state or provincial working groups. A large array of conservation tools must be included within these Plans. These include:

Partnerships -- This most obvious and fundamental factor in conservation is embodied in *Partners In Flight* Working Groups, but requires continual expansion and improvement.

Funding -- Accomplishment of these ambitious objectives will require innovative funding mechanisms, including dedicated sources of federal, state, and private funding.

Research -- Development and implementation of these Plans will stimulate new research efforts focused on key conservation questions,

including issues of natural history, population health, and accommodation of birds in managed landscapes.

Education and Outreach -- Achieving Plan objectives will require an effective and comprehensive information and education campaign directed toward policy makers, landowners, community leaders, and the general public.

Policy -- National, state, and local governments must be active and constructive partners in the conservation of birds and habitat. A policy strategy should be developed in order to encourage the effective application of existing incentives, policies, treaties, and laws and the development of new initiatives for improved governmental participation in conservation efforts.

The entire process must be “adaptive” in nature, with the flexibility for adjustments in Bird Conservation Plans and their implementation in response to observed results of actions. There will be two sources of information that may indicate that changes are necessary:

Regional, National, and International Plans -- The sum of the efforts in conservation planning unit and state Bird Conservation Plans must add up to adequate levels of protections throughout the ranges of priority bird species. Simultaneous application of this Strategy at these different geographic scales will help assure achievement of this goal.

Monitoring -- Finally, there must be a means of evaluating the results of all of these efforts through a long-term

commitment to monitoring the status of bird populations. Beginning with the Breeding Bird Survey and other existing efforts, a comprehensive monitoring program is needed to measure results and influence further conservation and management actions.

Partners In Flight and the Future of Birds

Bird conservation is a complex challenge. Birds use virtually every habitat on the surface of the earth and recognize no political boundaries. A single migrating bird may pass through a dozen countries that each has its own conservation priorities and challenges. Conserving birds and their habitats is beyond the capacity of any one organization, agency, or country. But when many groups work together, and their efforts are fueled by the enthusiasm of millions of birdwatchers and wildlife supporters, tremendous synergy is possible. This Strategy and development and implementation of Bird Conservation Plans will capture this synergy and ensure the future of North America’s birds.



Steps taken to complete the Wyoming Bird Conservation Plan.

Wyoming Bird Conservation Plan (BCP) - Step I

Wyoming Priority Landbirds and Their Conservation Status

Level I (Conservation Action) - species clearly needs conservation action (CA). This designation includes monitoring (M), and the need for additional knowledge (K) through research into basic natural history, distribution, etc. (we know so little about the species that it cannot be given another designation, although monitoring is not precluded).

Level II (Monitoring) - the action and focus for the species is monitoring (M). The stability of the species is often unknown. Or the species is peripheral (P) for breeding in the habitat, geographic area, and state.

Level III (Local Interest or Concern) - species that the group wants to recommend specifically for conservation action (CA) that is not otherwise a high priority species but is of local interest (LI). For example, a species that is widespread that wouldn't occur very high in the species prioritization database, but that may have a narrow habitat requirement, such as the Black Swift, Peregrine Falcon, Bald Eagle, etc.

Level IV (Not Considered a Priority Species) - species is known or thought to be stable (S) or increasing; no action is needed; monitoring is not precluded but is not the focus for the species. Or the species is extirpated (E) from the state and usually no action is needed, but action is not precluded (such as species reintroduction). Or the species is not found breeding in the state (X) and no action is needed; however, looking for the species is not precluded (eventually PIF-WWG will extend to consider conservation of wintering and migratory birds).

Wyoming BCP - Step II

The first part of Step II involves identifying habitat requirements of high priority species and species suites, and setting biological objectives (habitat objectives and population objectives), or “what we want”. Objectives should be measurable and have a geographic frame of reference.

An effective plan will combine the “why” (i.e. specific habitat needs for priority species) with the “where” (i.e. identifying specific types of habitat blocks that species need). There are two approaches to setting habitat and population objectives and both can be used in bird conservation planning: 1) A priori - set a knowledgeable objective, whether for some area of habitat or some number of breeding pairs, and then go to the maps and field and determine if we have it; or 2) A posteriori - go to the field to

determine who has what species and habitats and where, and then piece together what we think is viable. (It is imperative that studies are done to ensure that what is pieced together *is* viable for birds.)

For each priority habitat type within the gross habitat groups (riparian, grassland, forest, and shrubland), a description of those habitats for high priority birds should be recorded. This entails describing the biotic and abiotic conditions where the birds of interest occur (*not* how to manage them), including dominant vegetation types, horizontal and vertical structural characteristics, foliage density, the abiotic/physical situation, the moisture regime, conditions and threats, geographic extent, importance of phases or subtypes for each, context, etc.

When working in habitat groups, consider on a landscape level the following:
1) Describe the habitat: what are the historic conditions of the landscape and what are the present conditions of the landscape; 2) List the issues: use, access, problems, and what has acted on the habitat to change it; 3) Identify the specific features needed by the highest priority species [Level I (CA) and Level II (M) species]; and 4) What we want in order to maintain habitat, what is needed for birds, what is the habitat's potential, and how do we get there.

Wyoming BCP - Step III

This step involves developing Best Management Practices (BMPs) for each habitat group, identifying state Bird Conservation Areas (large areas that do or can sustain healthy populations of birds), and nominating Important Bird Areas (sites that are critical to rare species or large concentrations of a species) within the state.

To date, WY-PIF has been the lead for developing BMPs for riparian and grassland habitats. Idaho Partners In Flight has been the lead for developing BMPs for shrub-steppe habitat for the Western Working Group states; this publication was modified to suit Wyoming and included in our Plan.

A total of 27 sites in Wyoming were identified as Important Bird Areas (IBAs). If a site is not eligible for national IBA status, it may still qualify as a state IBA or a Bird Conservation Area.

Wyoming BCP - Step IV

Implement the plan: develop partnerships; identify funding sources; conduct inventory and monitoring (landowner contacts are needed for bird and habitat monitoring on private lands in the state), research, education, and outreach programs; and monitor the plan's success with on-the-ground habitat and population conservation projects.

References and Additional Reading

Carter, M. F., W. C. Hunter, D. N. Pashley, J. S. Bradley, C. S. Aid, J. Price, and G. S. Butcher. 1997. Setting landbird conservation priorities for states, provinces, and physiographic areas of North America. Partners In Flight Priority Database Final Report, Colorado Bird Observatory, Brighton.

Carter, M. F., W. C. Hunter, D. N. Pashley, J. S. Bradley, and K. V. Rosenberg. 2000. Setting conservation priorities for land birds in the United States: the Partners In Flight approach. *Auk* 117:541-548.