

The All-Bird Bulletin

Bird Conservation News and Information

Winter 2010

A publication of the North American Bird Conservation Initiative

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Advancing integrated bird conservation in North America

NABCI Partnerships in Action

Greg Butcher, National Audubon Society, U.S. NABCI Communications Subcommittee Chair

The theme for International Migratory Bird Day (IMBD) 2010 is *The Power of Part-nerships*. Of course, the North American Bird Conservation Initiative (NABCI) is all about partnerships working to improve bird conservation across the continent.

On March 11, Secretary of the Interior Ken Salazar released *State of the Birds USA* 2010 (SOTB), produced by a multi-organizational partnership under the auspices of the U.S. NABCI Committee (Committee). This year's report is built around a climate change vulnerability analysis of all the Nation's birds (see page 16—last page).

As one member of a continental partnership, the Committee recognizes the importance of working tri-nationally with its Mexican and Canadian colleagues. On page 2, Partners in Flight (PIF) demonstrates the importance of tri-national conservation for landbirds in its upcoming report *Saving Our Shared Birds* (SOS Birds).

The PIF and State of the Birds reports discuss the vital importance of conserving the fragile Chihuahuan grasslands to secure a future for North American grassland birds. The article on page 4 describes the progress of partners in this region, one of five NABCI-designated continentally important conservation areas in Mexico.

The Committee is dedicated to improving the delivery of Farm Bill conservation programs to achieve increased benefits for wildlife. In this arena, as in so many, a partnership approach is likely to make a big difference, as discussed on page 6.

Data management has long been a central concern of the bird monitoring community and the article on page 8 reports on the progress of the U.S. NABCI Monitoring Subcommittee's highly productive Database Management Team.

The Committee's new Policy and Legislative Subcommittee will be addressing important bird conservation policy issues such as passage of the Clean Water Restoration Act or similar legislation, as discussed in depth in the article on page 10.

The newest partnership opportunity is coming through the launch of regional Landscape Conservation Cooperatives (LCCs). Led by the U.S. Fish and Wildlife Service (FWS) with Department of the Interior commitment, LCCs will need support from partners from across the conservation community, as described on page 12.

The Committee recognizes that almost every federal agency has a role in migratory bird conservation. Per Executive Order 13186, the FWS is partnering with numerous federal agencies to help insure they are meeting their responsibilities under the Migratory Bird Treaty Act (MBTA)—see page 14.

Re-read this article carefully. An acronym quiz is sure to follow.

Saving Our Shared Birds: The Partners in Flight Tri-National Vision

Terry Rich, Partners in Flight National Coordinator, U.S. Fish and Wildlife Service

Landbirds are the most abundant and diverse group of birds in North America. The nearly 900 species of landbirds are found in every terrestrial habitat on the continent. As conservationists have long appreciated, birds are excellent indicators of environmental health. Their populations track changes in habitat, water, disease, and climate. And landbirds, in particular, are good indicators because many are relatively easy to see, are active during the day, and call out their names every time they sing.

As the focus of bird watching, these species help generate billions of dollars for national economies. Landbirds also provide invaluable ecosystem services, such as pest control, seed dispersal, and pollination. The impact of these critical roles comes into focus as Partners In Flight (PIF) now conservatively estimates that there are 6.3 billion landbirds in North America at the beginning of the breeding season. And these services travel with the birds during migration and winter as well. We have barely begun to estimate these economic values.

Yet, we are in danger of losing this spectacular and irreplaceable bird diversity. Landbirds are experiencing significant declines, ominous threats, and shrinking habitats across a continent with growing human populations and changing climate. Assessing the vulnerability of these species throughout their ranges is essential to setting conservation priorities.

The Evolution of Species Assessment. Saving Our Shared (SOS) Birds is the latest in a series of ever more comprehensive conservation assessments conducted by PIF. In 2000, PIF published Conservation of the Land Birds of the United States. This was the first thorough analysis of the priorities and needs of U.S. landbirds, addressing both the national and physiographic region scales.

With that experience and baseline, PIF immediately began to expand the report's geographic scope. In 2004, the PIF North American Landbird Conservation Plan was published, which presented priorities for the conserva-

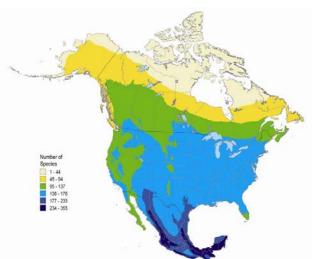


Figure 1. Distribution of the 882 native landbird species shared by Mexico, Canada, and the United States

tion of 448 landbird species in the U.S. and Canada. This document also pioneered a new generation of hotspot maps, the first -ever population size estimates for all landbirds, a monitoring needs assessment, and a more sophisticated Watch List with details such as population objectives and where and when a species could be most effectively conserved.

But even as the 2004 plan was being crafted, PIF knew that this document, too, was only another step toward the assessment, plan, and strategies that ultimately were needed. Next stop – Mexico. But before we could take this next step, we needed a comprehensive vulnerability assessment of the Mexican avifauna. That assessment (http://www.rmbo.org/pubs/downloads/Handbook2005.pdf) was conducted for the entire Mexican avifauna (nearly 1100 species), not just landbirds, over the period 2002-2006.

A Continent of Birds and People. Mexico, Canada, and the continental U.S. share 882 native landbird species. The distribution of these species changes from fewer species but with larger popula-

tions in the North, to more species but with smaller populations in the South (Fig. 1). But a key point—one that is reflected in our title—is that more than one-third of these species depend substantially on habitats in more than one country. In fact, more than 200 species and over 83% of individual landbirds rely on habitats in all three countries. For example, over 93% of the individual landbirds that breed in Canada's boreal forest winter elsewhere (Fig. 2).

Continued next page

Clearly, to be truly successful we must ensure that effective conservation is happening across the continent. But this does not mean we have to be overwhelmed by scale. Assessment results can help us prioritize and focus our efforts. For example, the tropical forests in Mexico provide critical wintering habitat for more than 60 shared migratory species. These same forests provide year-round habitats for 70% of our species of highest concern. These clear linkages compel us to work internationally.

Preventing Loss of Bird Diversity. In *Saving our Shared Birds*, PIF fully realizes the meaning of the second part of its own mission statement – *Keeping Common Birds Common.* The billions of birds that are flying north to south and then south to north every year, and that have been doing so for at least 10,000,000 years, do not all come from species at risk.

Steep declines in 42 common bird species have resulted in the loss of 800 million birds over the past 40 years. The greatest loss has occurred in the grasslands and eastern forests of the U.S. and Canada. Because we lack data for many tropical, boreal and arctic birds, we are almost certainly underestimating the real losses. Preventing the loss of bird abundance is a critical need. All of these species, all of these individual birds require stewardship.

Yet to prioritize limited resources and ensure that we are *Helping Species at Risk*, PIF identified 148 bird species in need of immediate conservation attention. These include:

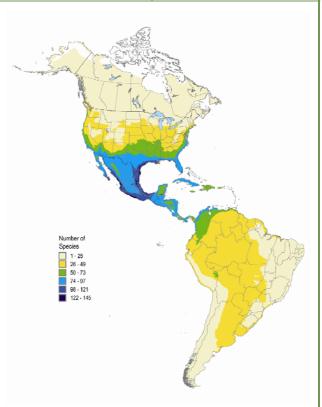


Figure 2. Wintering ranges of migratory species that breed in the Boreal Forest

- 44 species with very limited distributions, mostly in Mexico, that are at greatest risk of extinction;
- 80 tropical residents dependent on deciduous, highland, and evergreen forests in Mexico; and
- 24 species of high concern that breed in temperate-zone forests, grasslands, and aridland habitats (Fig. 3).

Action is needed in each country, but the most urgent needs are in Mexico, where tropical forests important to all high concern land-birds are threatened by continued clearing for agriculture, livestock production, timber, and urban development. Many species are also threatened by unsustainable hunting or trapping for the cage-bird trade. Urban sprawl, intensified agriculture and grazing, invasive pests and disease, and energy development threatens high-concern species in temperate forests, grasslands, and aridlands.

Taking Coordinated Tri-national Action. We can achieve our goals, but the window is rapidly closing. We need to take immediate action in six main areas.

- 1. Protect and recover species at greatest risk: A strong network of protected areas will support highest concern landbirds that depend on tropical forests in Mexico.
- 2. Conserve habitats and ecosystem functions: Relatively small policy changes can have dramatic cumulative benefits to birds in many habitats. Sustainable agriculture, forestry, and urban planning can provide core areas of habitat within altered landscapes.



Black-polled Yellowthroat is endemic to a few highly threatened freshwater marshes in the mountains of Central Mexico./ Kenneth V. Rosenberg

Continued on page 15

Chihuahuan Desert Grasslands Continentally Important Area

David Mehlman, The Nature Conservancy and Deborah Hahn, Association of Fish and Wildlife Agencies

Participants of the North American Bird Conservation Initiative (NABCI) identified five areas in Mexico for the development of Continentally Important Proposals. One of these areas encompasses the Chihuahuan Desert Grasslands of the Janos Valley, Chihuahua, and the Saltillo grasslands in Coahuila, Nuevo León and San Luis Potosí. The region continues to be the focus of major conservation planning and implementation. Numerous analyses have shown that grasslands are among the most threatened habitats on earth and underrepresented in protected area systems. North American grasslands are no exception and their disappearance has led to equally severe declines in the bird species that inhabit them, many of which are endemic. While grasslands have been under pressure from human disturbance for over 150 years (e.g.,



Long-billed Curlew/ Gary Kramer, USFWS

livestock grazing, agricultural conversion), other threats are now becoming pervasive across the biome such as invasive species, urban sprawl/residential development, energy extraction, and wind-power development.

Grassland birds and their habitats span the continent; therefore, their conservation depends on coordinated action in Mexico, the United States, and Canada. The Chihuahuan Desert Grasslands are a critically important wintering area for numerous species of grassland birds that depend upon an extensive network of existing and proposed conservation areas throughout the U.S. and Canadian Great Plains during the breeding season. Key accomplishments in recent years include land protection, implementation of an extensive grassland bird monitoring program, funding a Chihuahuan Grasslands Regional Alliance coordinator, and revision of the North American grasslands priority conservation area map. Key implementing partners and funding sources for these efforts include The Nature Conservancy (TNC), Commission for Environmental Cooperation (CEC), USDA Forest Service, Rio Grande Joint Venture, Sonoran Joint Venture, Rocky Mountain Bird Observatory, Pronatura Noreste, National Fish and Wildlife Foundation, World Wildlife Fund, Mexico's National Commission for Biodiversity Knowledge and Use (CONABIO), and the Neotropical Migratory Bird Conservation Act.

Protection efforts have proceeded at a rapid pace in this region. This is great news for some of our highest priority birds such as Long-billed Curlew, Sprague's Pipit, Baird's Sparrow, and Lapland Longspur.

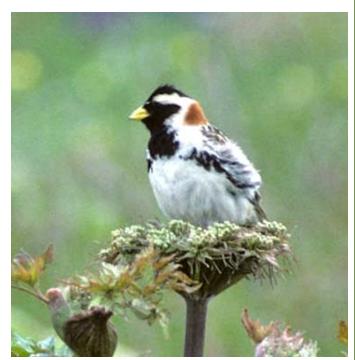
In 2005, TNC and Pronatura Noreste acquired a 46,000 acre ranch in the Janos Valley to establish the Reserva Ecologica El Uno, a centerpiece for grassland conservation throughout the region. The reserve protects in perpetuity important Black-tailed Prairie Dog colonies, intact desert grasslands, and populations of virtually all at-risk grassland-associated birds, and is a center for education and outreach for the local community. Educational activities include grassland management workshops for local ranchers, ecotourism training, and classes on grassland ecology for elementary school students. This acquisition was more than complemented by the Mexican government's late 2009 declaration of the 1.3 million acre Janos Biosphere Reserve. In the Saltillo Grasslands, Pronatura Noreste has acquired 585 acres and placed an additional 15,000 acres under conservation easement.

A regional bird monitoring program is currently underway in the Chihuahuan Desert Grasslands, coordinated by Rocky Mountain Bird Observatory. The most recent data from the fourth complete year of

monitoring came from grassland priority conservation areas spread across northern Mexico from Nuevo Leon in the east to Sonora in the west. Complementary work by partners has expanded this effort into southern Texas. In the most recent complete year of surveys, 126 species were found; the most commonly encountered species included Vesper Sparrow, Loggerhead Shrike, Horned Lark, Grasshopper Sparrow, and Eastern Meadowlark. An integral part of the monitoring effort each year has been a rigorous, week-long training program in bird identification, survey design and procedures, and data analysis. This training has significantly improved the quantity and quality of grassland bird surveyors in northern Mexico and will be a lasting contribution of the entire effort. The monitoring

program has received strong financial support from USDA Forest Service, CEC, and numerous other partners.

Thanks to the support and collaboration of the CEC, partners in Mexico hired a coordinator, Juan Carlos Guzmán, associated with ProFauna, to develop the Chihuahuan Grasslands Regional Alliance into a viable, long-term entity that can achieve significant conservation results. Initial duties of the coordinator include developing a draft conservation plan for the Regional Alliance; convening a meeting with stakeholders to develop goals, objectives, and guiding principles for the Regional Alliance; and beginning work with private and communal land owners to implement land management practices that promote biodiversity conservation across the northern Mexico grasslands. It is expected that the vision and strategy for the Regional Alliance will build off that developed in the Conservation Strategy for the Grasslands of the Chihuahuan Desert (or ECOPAD, according to its Spanish acronym, available at www.wwf.org.mx/wwfmex/archivos/ dc/080424 ecopad.php) developed by World Wildlife Fund—Mexico and numerous partners in 2007. Two cross -border bird habitat joint ventures, Rio Grande and Sonoran, are playing significant roles in this effort.



Lapland Longspur/ Donna Dewhurst, USFWS

Lastly, efforts are underway, again spearheaded by the CEC, to update the 2005 publication on North American Grassland Priority Conservation Areas (available at www.cec.org/Storage/65/5902 GPCA Technical Report en.pdf) originally developed by the CEC and TNC. The amount of new data that has become available since original publication indicates that a review and update of this important document is essential to increase the tri-national goal of grassland conservation. The update, expected to be complete in early 2010, will include a comparison of the Grassland Priority Conservation Areas (GPCAs) identified in the 2005 report with biodiversity and vegetation data available currently, a review and updating of the boundaries of the GPCAs, and the addition of GPCAs that appear warranted, based on recent data. These data have come from widespread additional grassland bird monitoring efforts underway in all three countries and revised ecoregional scale conservation planning activities conducted by many of the partners active in the North American grasslands.

All these efforts add up to very active and widespread ongoing conservation work on the vitally important, tri-national grasslands ecosystem. Building off the exciting accomplishments in Mexico, the conservation of North America's grasslands is advancing and will require continued partner involvement and focus across the continent.

Increasing Biological Capacity to Deliver Farm Bill Conservation Programs

Dave Smith, Intermountain West Joint Venture, Jim Inglis, Pheasants Forever, and Deborah Hahn and Jen Mock Schaeffer, Association of Fish and Wildlife Agencies

The Conservation Title of the 1985 Farm Bill started in motion one of the Nation's greatest stories of wildlife conservation. Private landowners have been increasingly empowered by Farm Bill conservation programs to protect, restore, and enhance tens of millions of acres of critical wildlife habitat throughout the country. The last 25 years have proven, as Aldo Leopold noted six decades earlier, that the future of wildlife conservation—including bird conservation—rests with private landowners.

The Farm Bill is one of the Nation's most powerful tools for fish and wildlife conservation due to its significant funding, voluntary, private lands focus, which includes more than 70% of the U.S. landscape, and the effectiveness of the technical assistance provided to landowners through its decentralized structure.

The bird conservation community, in large part, now understands that the vast funding available through Farm Bill conservation programs can influence habitat at the landscape scale. What most folks don't realize is that funding is only part of the equation.

Farm Bill conservation programs are vastly more effective for wildlife when there are skilled, passionate, wildlife biologists at the field level to help landowners participate in the programs. These biologists conduct outreach, conservation planning, and a host of other activities that get the money on the ground to meet

conservation priorities.

"Money matters, but people more so in successfully delivering wildlife habitat conservation." said Randy Gray, Farm Bill Coordinator for the Intermountain West Joint Venture and former Natural Resource Conservation Service (NRCS) National Biologist.

The NABCI Private Lands Subcommittee and its partners

The NABCI Private Lands Subcommittee and its partners make a strong case for increasing biological capacity to implement Farm Bill conservation programs and have provided recommendations to this end (visit http://www.nabcius.org/pvtlands_biocapacity.html for more information).

The most effective way to deliver quality conservation programs is to have knowledgeable people at all levels of planning, implementation, and evaluation. To this end, NRCS has entered into agreements with state wildlife agencies and non-governmental organizations to support fish and wildlife

partner biologists to work directly with producers and landowners. These biologists are sharing information with U.S. Department of Agriculture (USDA) staff on how conservation programs can benefit wildlife, while addressing other resource concerns. Partner biologists also can help coordinate with landowners to generate interest in programs. Partners can supplement missing positions and expertise. Some also have dedicated local volunteers to assist in fundraising and conservation program implementation at the grassroots level.

According to a recent survey conducted by the Association of Fish and Wildlife Agencies, 38 states reported a total of 123.5 cost-shared 'partner' biologists. In the past three years, NRCS has lost 21% of its own biologists across the country (from 177 to 140 positions)—the East region lost 26; the Central gained 4; and the West lost 15. The reasons vary from changing workload, retirements without backfilling, or fewer technical assistance dollars to continue field-oriented conservation planning.



Partner biologists focused on USDA program delivery in Nebraska / Steve Chick, NRCS

The largest total contingent of biologists is 21 in Kentucky. Some states, such as California, Colorado, and Texas have built biological capacity within NRCS staff, while other states such as Ohio, Kentucky, Missouri, and Iowa have engaged partnerships to help deliver fish and wildlife conservation work.

The following examples from across the country illustrate what NRCS and the wildlife community can do when they work together.

Using the Wetland Reserve Program to Address Bird Conservation Objectives in Central Valley, California

The Wetland Reserve Program (WRP) is the Nation's most significant wetland restoration program with over 2 million acres enrolled. Wildlife conservation partnerships with nongovernmental organizations and state fish and wildlife agencies have shaped WRP perhaps more so than with any other Farm Bill program delivered by NRCS. The power of the program is particularly evident in the Lower Mississippi Valley where over 500,000 acres are currently enrolled. Ducks Unlimited played an instrumental role in WRP implementation by partnering with NRCS to provide biological and engineering assistance necessary to restore wetlands and achieve the program's intended purpose.

The Central Valley of California represents another excellent example of WRP's significant role in achieving wildlife conservation objectives. Over 100,000 acres of WRP have been enrolled in California, mostly in the Central Valley. WRP has been the greatest single contributor to wetland restoration objectives established by the Central Valley Joint Venture to support North American Waterfowl Management Plan continental goals for wintering waterfowl populations.

Over the last decade, NRCS has partnered with the California Waterfowl Association, California Department of Fish and Game, and other entities to establish key biological delivery capacity at the field level to assist NRCS Field Offices with WRP implementation. Further, NRCS established biologist positions in key landscapes to work closely with partner agencies and organizations. In response, the wildlife community has contributed millions of dollars of cost-share funding to WRP easement acquisition, wetland restoration, and habitat management. Again, the success of WRP in the Central Valley is due to partnerships and biological staff capacity.

EQIP in Montana for Wildlife

NRCS State Conservationists have collaborated with the wildlife community to establish numerous wildlife-focused Environmental Quality Incentives Program (EQIP) Special Initiatives. Montana NRCS has been a leader in this arena, addressing the needs of Bull Trout, West Slope Cutthroat Trout, Arctic Grayling, Piping Plover, and Grizzly Bear. Since 2004, Montana NRCS has provided \$1-2 million annually for specific fish and wildlife EQIP Special Initiatives. Montana Fish, Wildlife, and Parks, the Intermountain West Joint Venture, and other wildlife partners provided the science foundation for these initiatives by identifying priority species, limiting factors, and spatially explicit priorities within focal landscapes.

A cornerstone of Montana EQIP Special Initiatives has been to increase field-level biological delivery capacity. NRCS has partnered with a wide range of conservation organizations – including Montana Fish, Wildlife and Parks, Trout Unlimited, North Powell Conservation District, Blackfoot Challenge, Ducks Unlimited, and the Intermountain West Joint Venture. NRCS increased biological staff at the field level, funded primarily through Contribution Agreements.



Northern Bobwhite/ Dave Menke, USFWS



Northern Pintail/ Gary Kramer, USFWS

Using CRP for Northern Bobwhite and Grassland Birds

The benefits of partnerships and capacity building extend beyond implementing conservation practices to other important aspects of the Farm Bill, such as monitoring and evaluating benefits to wildlife. In 2004, the USDA-Farm Service Agency (FSA) implemented the Habitat Buffers for Upland Birds (CP33) practice as part of the Continuous Conservation Reserve Program (CCRP). The FSA allocated 250,000 CP33 acres to 35 states to be actively managed over a period of 10 years, and charged the Southeast Quail Study Group (SEQSG) to develop a CP33 monitoring protocol to generate measures of population response for Northern Bobwhite and other priority bird species. This work is guiding technology development and CRP implementation of to achieve maximum wildlife benefits.

Progress on Data Management

Brad Andres, U.S. Fish and Wildlife Service, U.S. NABCI Monitoring Subcommittee Chair

Over the last year-and-a-half, the U.S. NABCI Monitoring Subcommittee (Subcommittee) has focused its attention on implementing actions described under the fourth goal in the *Opportunities for Improving Avian Monitoring* (2007) report—the need to maintain bird population monitoring data in modern management systems and provide greater access to avian monitoring information for management and conservation decision-making. To make progress toward this goal, the U.S. NABCI Committee (Committee) asked the Monitoring Subcommittee to identify the highest priority data management needs for the four major bird conservation partnerships, while realizing that achievement of all four of the report's goals would be needed to make effective conservation and management decisions.

The data management goal was addressed first because much data has already been collected but is inaccessible, poorly documented, incomplete, or under-utilized, all of which hamper our ability to make informed decisions about bird conservation and management. Ineffective data management can be costly in terms of the:

1) inefficiency and redundancy of systems and staff, 2) inability to alter ineffective conservation practices, 3) unavailability of information to make good decisions, and 4) failure to capture information from funded projects. Climate change has reemphasized the need for relevant, high quality, accessible data. The lessons



Dunlin and Western Sandpiper/ Alaska Maritime Museum

learned while strengthening the foundation of existing data management systems will be useful in developing new monitoring programs.

To ensure consistency among bird conservation partnerships, the Subcommittee held a workshop in July of 2009 to develop criteria that could be used to realistically assess priority data management needs for bird conservation. Attendees included representatives of the bird initiatives, database managers, and IT staff. The following organizations were represented: American Bird Conservancy, Association of Fish and Wildlife Agencies, Atlantic Coast Joint Venture, Conserve Wildlife Foundation of New Jersey, Cornell Laboratory of Ornithology, Institute for Bird Populations, Klamath Bird Observatory, Manomet Center for Conservation Sciences, PRBO Conservation Science, Texas Parks and Wildlife, U.S. Fish and Wildlife Service, and U.S. Geological Survey.

Participants collaboratively built a tool to assess the state of current data management systems and identify needed improvements, which included the following four elements: 1) a basic description of the data system, 2) policy and administration, 3) data collection and capture, and 4) longevity and use. Within each element, participants developed a series of assessment questions. After applying the tool, the bird conservation partnerships also determined the costs of making and maintaining improvements to their highest priority data management systems. Identification of priority data management systems by the bird conservation partnerships was restricted to those that informed management and conservation decisions at large geographic scales or populations levels. The Excel® assessment spreadsheet is available on the U.S. NABCI website at http://www.nabci-us.org/monitoring_database.html.

In January 2010, the Subcommittee recommended to the Committee a total investment of \$5.5 million to develop, enhance, and annually maintain priority data management systems for bird conservation. Costs might be reduced as improvements are implemented. In general, the investment would be used to: 1) develop policies and procedures for data management, 2) secure information that is in danger of being lost, and

3) ensure the longevity and application of bird monitoring information. These tasks will be accomplished primarily through the development or enhancement of NGO and agency data centers.

Although some efficiency can be gained through a coordinated effort among bird conservation partnerships, workload and equipment needs are often a direct function of the number of information records processed. Efficiencies can be achieved through the sharing of tools to capture, process, and maintain bird monitoring information and is being realized through approaches like the Avian Knowledge Network. Realize that by narrowing the scope of this exercise to the highest priority databases and using a tool to hone in on the most critical needs within those databases, this effort does not address the nu-

merous data management needs that exist at local scales and

within individual organizations.

Effective data management will be a critical component of fully functioning Landscape Conservation Cooperatives (LCC), and the implementation of the data management recommendations presented to the Committee could help achieve immediate success for the LCCs.

A brief synopsis of the bird conservation partnerships' priorities is provided below:

Partners in Flight (PIF) – Support development or improvement of seven data centers within the Avian Knowledge Network, such as the California Avian Data Center, which will be either regional or based on specific protocols. Maintain the Breeding Bird Survey database and PIF Species Assessment databases.



Horned Grebe with young/ Donna Dewhurst, USFWS

Shorebirds – Increase the utility of the data management system for the International Shorebird Survey, enhance longevity and use of information collected previously in several broad-scale surveys, and develop an effective, comprehensive color-band reporting system.

Waterbirds – Fully develop the data center at Patuxent Wildlife Research Center, which includes marshbirds and colonial waterbirds. Maintain and enhance colony, diet, and pelagic data management systems for seabirds in both Pacific and Atlantic Oceans.

Waterfowl – Enhance data management capabilities, including reducing historic back-logs, for the Breeding Population and Habitat Survey, Atlantic Flyway Breeding Waterfowl Survey, and Mid-Winter Waterfowl Survey.

A second data management focus for the Monitoring Subcommittee was the development of "best practices" for data management. The objective of this endeavor was to produce guidance that was broadly applicable across scales and bird monitoring systems. This guidance grew out of the adaptation of the "Bromley Principles" (http://www.gcrio.org/USGCRP/DataPolicy.html) for data management to the bird conservation enterprise we had previously drafted. Although the guidance provides an ideal data management scenario, we encourage readers to read through the document and pull out the pieces that work for their specific situation. Applying at least some of these standards will help us all move down the path of better data management. Data Management Best Practices and Standards for Biodiversity Data Applicable to Bird Monitoring Data is available on the U.S. NABCI website at http://www.nabcius.org/monitoring database.html.

Many thanks to all on the U.S. NABCI Monitoring Subcommittee and Data Management Team who helped get these tasks completed.

Wetlands in the Balance

Scott C. Yaich, Director of Conservation Operations, Ducks Unlimited

The Federal Clean Water Act (CWA) was passed by Congress and signed by President Nixon in 1972. Its purpose was to "restore and maintain the chemical, physical and biological integrity of the waters of the United States." Congress very explicitly recognized that the integrity of navigable waters depended upon protecting their sources. Thus, the waters protected by the CWA included most of the nation's wetlands because of their hydrologic and ecologic interconnectedness with flowing waters.



Bog at Yukon Flats National Wildlife Refuge / Laura Kennedy, USFWS

In 2001, however, federal CWA protections were withdrawn from tens of millions of acres of wetland habitats and hundreds of thousands of miles of intermittent and ephemeral streams.

The original CWA stated that, "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." While the Nation did not achieve that admirable goal, the CWA did help to slow down the loss of wetlands and degradation of the nation's waters. There were remarkable improvements in water quality across the country and the annual loss of wetlands most important to waterfowl and other fish and wildlife slowed from over a half-million acres during the 1950s-70s to approximately 80,000 acres per year from 1998-2004.

Nevertheless, the U.S. lost approximately 53% of its original wetlands by the 1980s, although some states and regions lost much more than that. States like California and Ohio lost approximately 90% of the wetlands they once had, and in general, landscapes once rich in small, shallow wetlands typically experienced a disproportionate degree of wetland loss.

For example, the Prairie Pothole Region (PPR) once contained about 20 million acres of wetlands. Today, less than a third of those wetlands remain. In a five-county area in southwest Minnesota, for example, over 87% of the wetland basins have been lost. Modeling indicates that this landscape is now able to produce less than 20% of the ducks that it once did. Even more sobering, this study area is largely representative of most of western and southern Minnesota, all of the Iowa lobe of the PPR, and significant portions of the eastern Dakotas.

The Rainwater Basin area of Nebraska, the "neck of the hourglass" for migrating waterfowl in the central U.S., has fared even worse. Approximately 5-7 million waterfowl, including 90% of the mid-continent's white-fronted geese and mallards, migrate through this small region. This landscape once contained over 7,800 wetland basins. Today, only about 375, or less than 5%, remain.

Although these examples highlight waterfowl, many other bird species and other wetland-related fish and wildlife species have been affected by this tremendous loss in habitat. Approximately one-half of North America's birds are dependent upon or associated with wetlands and nearly one-half of the nation's threatened and endangered species are wetland-associated.

Unfortunately new and serious challenges to wetlands conservation arose at the start of the new millennium. Two U.S. Supreme Court rulings, one in 2001 (SWANCC case) and the other in 2006 (Rapanos/Carabell case), have thrown the future direction of wetland conservation into serious doubt. Any progress that has been made in conserving wetland-associated birds is at significant risk of being reversed. The crux of the issue is that the rulings are confusing and ambiguous even to those who scrutinize every word. As a result, the U.S.

The Army Corps of Engineers and Environmental Protection Agency issued a new round of regulatory guidance following each ruling that stripped 30 years of federal protections from literally tens of millions of acres of wetlands.

Bird and other wildlife conservationists should be particularly concerned that small wetlands in agricultural landscapes, such as prairie potholes, rainwater basins, and playa lakes, are at greatest and most immediate risk. Despite all the science that demonstrates their hydrologic and ecologic connections to navigable waters, so-called "geographically isolated wetlands," are no longer being protected by the CWA. We are thus on the verge of losing many of these wetland habitats so critical to birds and other wildlife.

The interstate commerce clause of the U.S. Constitution is the fundamental basis for the country's most important environmental statutes, and the documentation of interstate commerce associated with migratory birds is clear. For example, of the approximately 1.6 million waterfowl hunters in 2001, about 17% traveled out-of-state to hunt. Additionally, of the ducks banded in the PPR states of North Dakota, South Dakota, and Montana, 73% were recovered outside those states and over 9% outside the country. Thus, the \$2.3 billion in total economic output generated by waterfowl hunting and the \$9.8 billion generated by the Nation's estimated 20 million waterfowl and waterbird viewers represents a significant interstate commerce that is dependent upon the state of the nation's wetlands and other waters.



Inconsistent judicial decisions at the federal district and circuit Ducks in flight over open marsh/ Steve Hillebrand, USFWS court levels since 2001 have made it apparent that a legislative

fix will be required to restore Clean Water Act protections to these wetlands and other waters. Congress must restate and re-assert their intent, made clear in their 1977 CWA debate and amendments, that the jurisdiction of the act extended to all the nation's waters, including wetlands.

After Congressional hearings about the issue in recent years, the Clean Water Restoration Act (CWRA) was introduced into the Senate during spring 2009 and an amended act (only 12 pages long) was passed out of the Senate Environment and Public Works Committee. The primary purpose of the CWRA is to resolve the confusion introduced by the Supreme Court rulings and restore Congress's original intent that the CWA should protect the Nation's rivers, streams, water quality and wetlands. The CWRA was carefully worded to simply restore the level of protection of wetlands and other waters that existed before the 2001 Supreme Court decision—"no more, no less," in the words of Senator Max Baucus (MT), one of the amended act's co-sponsors (along with Sen. Amy Klobuchar, MN, and Sen. Barbara Boxer, CA). A House version has not yet been introduced, but Rep. James Oberstar (MN), the sponsor of similar legislation in previous Congresses, has stated that he would be introducing legislation.

Restoring Clean Water Act protections should be a very high policy priority for bird conservationists. As we struggle to make the most out of appropriations for positive legislation such as the North American Wetlands Conservation Act and Neotropical Migratory Bird Conservation Act, all signs indicate that a tight fiscal climate lies ahead. Moreover, all the habitat conservation funded by these acts, and state and federal wildlife conservation agency appropriations, can do no more than make up for a small amount of habitat lost as a result of withdrawn CWA protections.

In the face of the complex challenges that climate change will bring to protecting the Nation's waters, we can ill afford to allow the loss and degradation of these resources to re-accelerate. Everyone and every organization with an investment or a stake in bird conservation must work in support of passage of legislation like the CWRA to restore the level of protection that wetland habitats and other waters had prior to 2001.

The new U.S. NABCI Policy and Legislative Subcommittee will be working on these and other important conservation policy issues in the coming months.

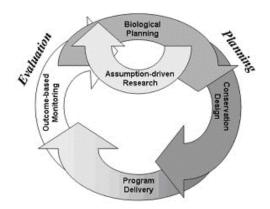
Landscape Conservation Cooperatives: Putting More Science in the Right Places

David Eisenhauer, Office of Public Affairs and Paul Schmidt, Migratory Bird Program, U.S. Fish and Wildlife Service

For more than two decades, the U.S. Fish and Wildlife Service (Service) has supported, convened, and facilitated partnerships called joint ventures to plan, design, implement, and evaluate habitat conservation on the landscape for birds. One important role of the bird habitat joint ventures is to put science to work to guide the efforts of partners in fulfilling the national and international goals of the bird conservation plans. The success of the bird habitat joint ventures continues to be evident and infectious.

Now the Service is taking this idea of strategic habitat conservation to a new level and applying it to all fish and wildlife taxa by working with diverse partners to establish a national network of applied conservation science partnerships in response to broad-scale resource threats, including climate change.

Strategic Habitat Conservation



Implementation

These partnerships, called landscape conservation cooperatives (LCCs), will be a centerpiece of the Department of the Interior's (DOI) and Service's conservation strategy. The LCCs will be composed of federal agencies, states, tribes, non-governmental organizations, universities, and stakeholders within a geographically defined area.

The cooperatives' primary function will be to build shared science capacity to inform resource management decisions that address a range of stressors at "landscape" scales or across the entire range of a priority species or group of species. Important stressors include habitat fragmentation, contamination, invasive species, water scarcity, and energy development—all of which are compounded by accelerating climate change.

LCC scientists, using advanced computer models and predictive data from DOI Climate Science Centers, will forecast how climate change

could alter regional ecosystems decades from now. That, in turn, will help resource managers determine adaptive conservation strategies and actions that anticipate changes in habitat and the abundance and distribution of species.

Landscape conservation cooperatives will give resource managers the information they need to make decisions based on sound science. Ultimately, LCCs will help us live up to the expectations of the American public and fulfill our trust responsibility to sustain fish and wildlife populations in the face of climate change and other 21st-century resource threats.

With an initial federal investment of \$25 million this year and other funding sources, the Service and U.S. Geological Survey (USGS) are forming nine LCCs across the country. Those "first generation" cooperatives include the Arctic, Great Northern, Great Plains, North Atlantic, South Atlantic, Pacific Islands, Plains and Potholes, and California regions. Most incorporate parts of several states.

Interior's FY 2011 budget request includes \$3.8 million to establish three more LCCs, and the Service is requesting \$8 million in direct appropriations for climate change planning and science aimed at adaptive management. The eventual goal is to create a "seamless national network" of 21 cooperatives by 2012.

The level of partnership engagement and commitment is encouraging. The National Park Service is committing support for several emerging LCCs, including the Pacific Islands, Great Northern, and South Atlantic. NOAA has committed support in the Pacific Islands. And the Bureau of Reclamation, Bureau of Land

Management, U.S. Forest Service, Natural Resources Conservation Service, and others have expressed interest in contributing resources. In fact, partner interest could drive the establishment of several additional LCCs in FY 2010

The Service expects most if not all FY 2010 LCCs will have staff in place and governance details ironed out in the next several months. Though it may take a few years for the LCC network to be fully functional in terms of science capability and connectivity, LCCs will begin providing scientific support to resource managers immediately.

LCCs not only represent a more networked approach to conservation, but they also signal a new way of doing business. Our conservation target—once as simple as protecting and managing parts and pieces—is now as complex as sustaining systems and functions, species and populations at landscape scales.

LCCs embrace strategic habitat conservation and the idea that protection, restoration and management are not ends unto themselves. These activities, when guided by applied science, are a means to a larger outcome —landscapes capable of sustaining diverse and healthy populations of fish, wildlife, and plants. In this way, LCCs can transform and build on the work being done right now. Similarly, LCCs are promoting relationships that allow a region's pri-



Winter flock of Spectacled Eiders, Bering Sea/ William Larned, USFWS

vate, state, and federal conservation infrastructure to operate as a system rather than as independent entities.

The Service will play key leadership and catalyst roles in developing each LCC by assisting in initial planning, partner coordination, assembling core staff and meeting associated needs for operational support. As in joint ventures, the cooperatives will be "partner-driven."

Rather than create a new conservation infrastructure from the ground up, LCCs will build upon explicit biological management priorities and objectives, as well as science available from existing partnerships, such as fish habitat partnerships, bird habitat and species joint ventures, flyway councils, and other species- and geographic-based partnerships.

That's precisely what's happening in the Prairie Pothole Region of the northern Great Plains, where the Service's Midwest and Mountain-Prairie Regions are working with partners to establish the Plains and Prairie Potholes LCC.

According to the U.S. Global Change Research Program, climate change effects in the region, combined with other human-induced stresses such as cropland conversion and energy development, are likely to further increase the vulnerability of ecosystems to pests, invasive species, and loss of native species. As a result, the region could lose up to 90% of its wetlands, reducing the number of the region's breeding ducks by as much as 69%, according to the Wildlife Management Institute report, *Season's End: Global Warming's Threat to Hunting and Fishing*.

The Plains and Prairie Potholes LCC will leverage existing science capacity and partnerships to help conserve native wetlands and grasslands in the region. The Service has many strong conservation partnerships within the area, including three bird habitat joint ventures and four fish habitat partnerships. Existing Service science and conservation planning capacity includes the Habitat and Population Evaluation Team (HAPET) offices in Fergus Falls, MN, and Bismarck, ND, the Fish and Wildlife Conservation Offices, the Fish Technology and Fish Health centers, and many national wildlife refuges, national fish hatcheries and ecological services field offices.

LCCs can add value to what already exists. They are being designed to ramp up our level of scientific knowledge and understanding to make the Nation's wildlife conservation efforts more strategic and ultimately more sound. For more information on LCCs, visit www.fws.gov/science/shc/lcc.html.

Council for the Conservation of Migratory Birds

Marcia Maslonek, Division of Migratory Bird Management, U.S. Fish and Wildlife Service

Many equate migratory bird conservation with the U.S. Fish and Wildlife Service—but what about other federal agencies? What role do they have in protecting our Nation's birds?

In 2001, President Clinton signed Executive Order 13186 (http://www.fws.gov/migratorybirds/ Partnerships/migbrdeo.pdf) to ensure that federal agencies meet the nation's migratory bird conservation responsibilities under the Migratory Bird Treaty Act. The United States has recognized the importance of migratory birds through ratification of migratory bird conventions with Great Britain on behalf of Canada in 1916, Mexico in 1936, Japan in 1972, and the Soviet Union in 1978. These conventions, together with the Migratory Bird Treaty Act, ensure the conservation of migratory birds and their habitat in the United States. The Executive Order outlines specific requirements for federal agencies to undertake to protect and conserve birds, including the development of Memoranda of Understanding (MOU) with the Fish and Wildlife Service (Service) and the formation of a Council for the Conservation of Migratory Birds. This Council met for the first time on December 3, 2009 to discuss coordination and collaboration among those federal agencies whose actions may affect migratory bird populations.



Loon on nest/ Robert Bergman, USFWS

Over 50 participants from 21 federal agencies, with representation from the Departments of Interior, Agriculture, Energy, Commerce, Transportation, State, and Defense attended the first meeting. One goal of the Council is to improve opportunities for federal activities to more effectively contribute to the protection and conservation of migratory birds as well as recognize positive impacts federal agencies are having on migratory bird populations.

To begin this dialogue, agencies that have signed an MOU with the Service, in accordance with the Executive Order, shared the successes and challenges of developing and implementing their respective MOUs. By the end of 2009, the Department of Defense, Department of Energy, Forest Ser-

vice, and Minerals Management Service each signed an MOU with the Service. In early spring of 2010, both the National Park Service and Bureau of Land Management will also

be signing their Memoranda. These first partners in the Executive Order are to be commended for their efforts, which ultimately will benefit their staff and partners in understanding and furthering their roles in bird conservation.

An important component of the MOUs is the development of conservation measures that apply to the activities of that agency. These conservation measures should reduce impacts to migratory birds, including both "intentional" and "unintentional" forms of take. The development of partnerships between agencies and non-governmental organizations, or using existing forums such as NABCI, was also discussed and encouraged. Such partnerships are proving to be important vehicles to more efficiently implement conservation across regional landscapes, both within the U.S. and internationally (e.g., bird habitat joint ventures). For example, eight federal agencies are represented on the U.S. NABCI Committee in addition to fourteen non-governmental organizations, state wildlife agencies, and bird partnerships.

Given the overlapping goals of these two entities, the U.S. NABCI Committee may provide the Council with key objectives, priorities, and/or data as appropriate, and likewise the Council may inform U.S. NABCI of particular needs and opportunities that could help the federal agencies meet their obligations. This avenue of information exchange with the leadership of federal agencies that do not currently sit on the U.S. NABCI Committee could strengthen partnerships and better align bird conservation within the federal government. Continued next page

The Council will produce an annual report highlighting accomplishments, and select a recipient for a new Presidential Migratory Bird Federal Stewardship Award. A committee will be working on both of these products in preparation for the second meeting at the end of 2010. The report and award will raise awareness of important bird conservation efforts within the federal government, and recognize the often unsung heroes within this sector. This should encourage others to continually strive to better meet their own bird conservation responsibilities. Migratory bird conservation is a responsibility we all share, and the Council for the Conservation of Migratory Birds will work to ensure that the federal government meets and exceeds its own mandate.

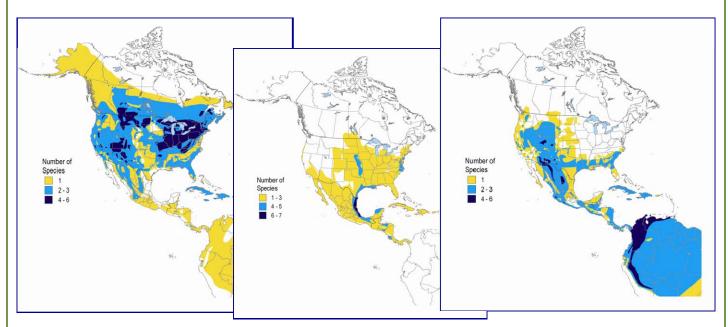


Figure 3. 24 High concern temperate breeders during breeding, migration, and winter

Continued from page 3

- 3. Reduce sources of direct mortality: Providing alternative livelihoods can reduce unsustainable hunting and trapping for the cage-bird trade. We must discover and implement measures to reduce other sources of mortality, such as collisions with windows and tall structures, pesticides, and domestic cats.
- 4. *Increase the power of partnerships:* Regional alliances, international joint ventures, and community-based partnerships are successful models for communication, collaboration, and expanded funding. New mechanisms for engaging business, industry, and nongovernmental sectors are necessary.
- 5. Expand our knowledge base for conservation: Effective conservation programs require an increased understanding of distribution patterns, seasonal connectivity, and factors limiting bird populations. We also need to better understand the response of populations to management practices, the cumulative effects of human-caused mortality, and the potential impacts of climate change.
- 6. Engage people in conservation action: Because human activities are the primary force driving population declines, a more engaged society will be necessary to conserve habitats and reverse declines. Shared products and programs can increase participation by bird enthusiasts in citizen science and promote economic gain for people who rely on birds or bird habitats for their livelihoods.

Saving Our Shared Birds will be released in English, French and Spanish in May 2010. Watch for it, read it, and find your place in making it happen. Next stop—Central America.

The North American Bird Conservation Initiative (NABCI) is a coalition of organizations and initiatives dedicated to advancing integrated bird conservation in North America.

The vision of NABCI is to see populations and habitats of North America's birds protected, restored, and enhanced through coordinated efforts at international, national, regional, state, and local levels, guided by sound science and effective management.

The goal of NABCI is to deliver the full spectrum of bird conservation through regionally based, biologically driven landscape-oriented partnerships. The All-Bird Bulletin is a news and information-sharing publication for participants of NABCI.

For subscription or submission inquiries, contact the Editor, Roxanne Bogart, U.S. Fish and Wildlife Service, 802-872-0629 ext. 25 or Roxanne Bogart@fws.gov. To download back issues, visit http://www.nabci-us.org/news.html.

The All-Bird Bulletin publishes news updates and information on infrastructure, planning, science, funding, and other advancements in the field of integrated bird conservation and management. Include author's name, organization, address, telephone and fax numbers, and e-mail address. Pictures are welcome but not necessary.

Salazar Releases the State of the Birds 2010 Climate Change Report

Alicia King, Migratory Bird Program, U.S. Fish and Wildlife Service

The State of the Birds 2010 Report on Climate Change—a collaboration of the U.S. Fish and Wildlife Service and experts from the Nation's leading conservation organizations as a subcommittee of the North American Bird Conservation Initiative—is the first comprehensive assessment of the vulnerability of bird species to global warming across the United States. The report shows that climate changes resulting from a warming Earth will have an increasingly disruptive effect on bird species in all habitats, with oceanic and Hawaiian birds in greatest peril.

Birds are excellent indicators of the health of our environment and right now they are telling us an important story about climate change. Many species of conservation concern will face heightened threats, increasing our sense of urgency to protect and conserve vital bird habitat.

Released by Secretary of the Interior Ken Salazar in Austin, Texas on March 11th, *The State of the Birds 2010 Report on Climate Change* presents the following key findings:

- Oceanic birds are among the most vulnerable species because they don't raise many young each year, rely on a rapidly changing marine ecosystem, and nest on islands that may be flooded as sea levels rise.
- Hawaiian birds such as the endangered species, *Puaiohi* and 'Akiapola'au, already face multiple threats and are increasingly challenged by mosquito-borne diseases and invasive species as climate change alters their native habitats.



Common Nighthawk / Dave Menke, USFWS

- Birds in coastal, arctic/alpine, and grassland habitats, as well as those on Caribbean and other Pacific Islands show intermediate levels of vulnerability; most birds in aridlands, wetlands, and forests show relatively low vulnerability to climate change.
- For bird species that are already of conservation concern such as the Golden-cheeked Warbler, Whooping Crane, and Spectacled Eider, the added vulnerability to climate change may hasten declines or prevent recovery.
- The report identified common bird species such as the American Oystercatcher, Common Nighthawk, and Northern Pintail as likely to become species of conservation concern as a result of climate change.

While there is much to be concerned about in this report, we can reduce the impacts of climate change by taking immediate action to reduce carbon emissions and finding creative conservation solutions to help birds adapt to the changes that are already in process.

For more information about The State of the Birds 2010 Report on Climate Change visit http://www.stateofthebirds.org