

TESTIMONY OF PAUL SCHMIDT, ASSISTANT DIRECTOR, MIGRATORY BIRDS PROGRAM, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE NATURAL RESOURCES SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND OCEANS, REGARDING AN ASSESSMENT OF THE GLOBAL DECLINE IN BIRD POPULATIONS

JULY 10, 2008

Chairwoman Bordallo and Members of the Subcommittee, I am Paul Schmidt, Assistant Director for the Migratory Birds Program for the U.S. Fish and Wildlife Service (Service). I am pleased to be with you today to discuss the status and trends of bird populations and the work that the Service is undertaking to both better understand observed population declines and develop conservation actions to address them across the country. I am accompanied by Dr. Wayne Thogmartin, an ecologist with the U.S. Geological Survey's Upper Midwest Environmental Services Center (UMESC) in La Crosse, Wisconsin. Dr. Thogmartin's research focuses on landscape and habitat ecology for animals declining in abundance, particularly birds.

The Administration appreciates your interest in this important issue. A number of reports and studies suggest that populations of many wild bird species are in decline. For example, the National Audubon Society issued a report in June 2007 entitled, "Common Birds in Decline," based on annual sighting data from Audubon's Christmas Bird Count (CBC) and U.S. Geological Survey's Breeding Bird Survey (BBS) data. This report indicated a significant decline in 20 common bird species that have lost at least half of their population in just four decades. The CBC and the BBS provide some of the best available science on long-term population trends for many bird species. Along with our own survey information, results from both programs are widely used by the Service and our partners.

Though many factors affect declines in wild bird populations, habitat loss is the most significant. The amount and quality of habitat for birds and other wildlife is dynamic. While the amount of forest habitat has improved dramatically in the eastern U.S. over the last century as the demand for fuel wood and pasture has declined, the growth in U.S. population, particularly over the last 50 years, has required significant real estate development and reduced both the amount and quality of bird habitat. Since 1985, the Conservation Reserve Program and other programs have secured millions of acres of grasslands and other habitats that support bird populations. Today, continuing needs for energy, industrialized agriculture and other land uses are regulated, in part, to help minimize and mitigate landscape alteration, fragmentation, and other adverse effects on remaining bird habitat.

Wetlands are a particularly important bird habitat. Over 220 million acres of wetlands are thought to have existed in the lower 48 states over the last 1,000 years. Extensive losses have occurred, and over half of our original wetlands have been drained and converted to other uses. At the same time, there has been considerable recent progress in combating wetland loss. On Earth Day 2004, President Bush had set a goal for Federal agencies to protect, improve, and restore 3 million acres of wetlands by 2009. That goal was met one year early, and by Earth Day

2009, federal agencies expect to restore or create, improve, or protect, 893,000 additional acres, which will further exceed the original goal. These accomplishments contribute to an improving trend toward a net gain of wetlands. The latest Status and Trends Report showed that, for the first time in the five decades of measurement, wetland gains exceeded wetland losses, at a rate of approximately 32,000 acres per year for the period 1998–2004.

Migratory bird species are especially sensitive to habitat loss and also habitat restoration efforts. Hundreds of species of migratory birds travel thousands of miles each way between their breeding grounds in the United States and Canada and warmer climates in Mexico, Central and South America, and the Caribbean. The survival of these species depends on the availability of stopover habitat where they can rest during their long migrations. A changing climate is also affecting bird populations and distribution, as it has been shown to alter their habitat and access to water and food. Collisions with structures such as communication towers, buildings and wind generation facilities kill tens of millions of birds each year. Feral and domestic cats kill tens of millions more.

To help address these concerns, the President announced an initiative in October 2007 to improve the status of 5 more species of migratory birds in 5 years. The Department of the Interior's Birds Forever budget initiative will support this initiative with targeted planning and broad-scale activities to address threats to bird species, including funding for monitoring and assessment of birds, implementation and development of focal species plans, and Migratory Bird Joint Ventures. In 2009, under the initiative, the Service will build on its ongoing work to improve an additional 200,000 acres of National Wildlife Refuge System lands; create additional urban bird treaties; expand migratory bird conservation through the Migratory Bird Joint Ventures; work with our partners in Mexico, Central America, South America and the Caribbean to enhance bird habitats in those regions; improve the status of five bird species over the next five years; and publish a 2009 "State of the Birds" report. In addition, we are working jointly with the Department of State to increase U.S. participation in the Agreement on Conservation of Albatrosses and Petrels (ACAP), a coordinated international activity to mitigate known threats to these populations.

The Service is expanding its efforts to bring more migratory bird populations to healthy and sustainable levels through our Focal Species Strategy. We define "focal species" as those species that, because of their biological needs or threatened status, require fine-scale assessment and management actions. After we determine the population status for focal species, we develop and implement species-specific action plans that spell out and prioritize activities needed to improve the status of each focal species. Where focal species cross international boundaries, we reach out to our international partners to understand factors influencing population status. Over the last three years, the Service has drafted or finalized plans and begun implementation of actions for 11 focal species. We have also identified some additional focal species for which we intend to complete action plans by the end of Fiscal Year 2009, should funding be available as requested by the President.

Monitoring

Monitoring is a fundamental tool to conserve and manage wild bird populations. As the principal federal agency charged with protecting and enhancing the populations and habitats of more than 800 species of migratory birds that spend all or part of their lives in the United States, monitoring has long been a key component of the Service's trust responsibility for North America's migratory bird resources. Identifying species in highest need of management and conservation action, directing resources to determine the causes of declining populations, designating areas that will likely provide source populations, and regulating harvest of migratory game birds all depend on a reliable monitoring and assessment framework. Monitoring also enables us to evaluate specific conservation or management actions. Tracking population-scale responses of birds to natural and man-made changes also lets us manage adaptively by incorporating the best and most current information in management decision-making and by providing feedback on the outcome of those decisions.

While Audubon's CBC and U.S. Geological Survey BBS data provide a wealth of information on the population status of some species, additional multi-species, large-scale surveys are important to generate the information needed for science-based conservation. For more than 50 years, the Service has invested in aerial surveys of waterfowl populations in North America. Yet, aerial survey coverage is still lacking in important migratory bird habitats, such as the arctic and sub-arctic ecosystems of the continent where thawing permafrost and changes in the plant and animal communities of northern forests, wetlands, and tundra may be linked to changing climate, significantly altering breeding site suitability for a broad spectrum of migratory bird species. Other specialized surveys are being developed, for example, for secretive marsh birds and shorebirds.

The Birds Forever Initiative will assist in making operational the large-scale, multi-species surveys needed by researchers and managers to better understand, and hopefully help forestall, the impacts of climate change, habitat fragmentation, land conversion and other large-scale threats to sustainable migratory bird populations. Banding information is also critical to continued efforts to better understand the cause of decline of migratory birds and loss of harvest potential for waterfowl, especially in boreal and tundra breeding habitats used by scaup and other species. Renewed efforts are currently underway by the Service and Flyways to develop and implement banding programs.

Research

The U.S. Geological Survey is the primary Federal agency studying migratory songbirds. This research extends to all phases of the life history of migratory birds, including limitations on breeding grounds, loss of habitat along migration routes and adverse impacts to overwintering habitat. These studies encompass much of the western hemisphere due to the extensive migratory range of songbirds.

As the primary science provider to Service, the U.S. Geological Survey has a number of ongoing research activities relevant to migratory bird conservation. For example, U.S. Geological Survey research indicates a 90% probability that populations of the Cerulean Warbler (*Dendroica*

cerulea), once one of the most common songbirds in mature, eastern U.S. forests, will decline by 90% over the course of the 21st century. Cerulean Warbler populations are projected to drop from 1.4 million birds in the mid-1960s to approximately 40,000 birds by 2100. These findings were used in 2006 when the Service considered listing the Cerulean Warbler as a threatened species under the Endangered Species Act. Conversely, the Henslow's Sparrow (*Ammodramus henslowii*), once the fastest declining population of migratory songbirds, exhibited a reversal in its decline (and a commensurate reversal of extinction risk) with the environmental enhancement of Midwest agricultural lands under the Conservation Reserve Program (CRP). U.S. Geological Survey scientists are currently monitoring whether the conservation benefits for species such as the Henslow's Sparrow that have been gained from CRP land conversion will be lost as these lands are converted back into agricultural use.

Management

Under the authorities of the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, the Service is responsible for regulating activities associated with migratory birds. These two federal statutes are the primary authorities used by the Service to regulate the taking, killing or possessing of migratory birds. Effective regulation helps ensure healthy and sustainable migratory bird populations. For example, power companies cooperate to prevent electrocutions of eagles and other species on their power lines.

The regulation of take is a primary and traditional Service activity that integrates data-gathering activities designed to evaluate the status of migratory bird populations. Annual survey results help guide the Service in managing waterfowl conservation programs under authority of the Migratory Bird Treaty Act. The Service then works in partnership with State representatives from the Flyway Councils to establish regulatory frameworks for waterfowl hunting season lengths, dates and bag limits. The Service manages the take of migratory birds for purposes other than hunting through a permitting system.

Our ability to properly manage migratory birds and return declining populations to healthy levels depends to a large degree on cooperation and collaboration with our partners and the public, both within the United States and among the nations of the Western Hemisphere. We are presently working to strengthen this cooperation through the Western Hemisphere Migratory Species Initiative, and in accordance with the bird conservation treaties, we also work with Japan and Russia and are initiating efforts to collaborate with countries in the Eastern and Southern Hemisphere regarding shared conservation issues. Citizen scientists, academic researchers, property owners and managers, corporate leaders, and regulators are increasingly coming together in partnerships to work together in achieving a shared vision for migratory bird conservation.

A number of programs and initiatives illustrate the success of these partnerships in conserving birds and habitat at the regional, national and international level. They include: the North American Waterfowl Management Plan; and other continental bird conservation initiatives; joint ventures; grant programs; the Federal Migratory Bird Hunting and Conservation Stamp (also known as the Federal "Duck Stamp"); and Strategic Habitat Conservation.

North American Waterfowl Management Plan

The North American Waterfowl Management Plan is one of the most successful conservation initiatives in the world. The North American Waterfowl Management Plan's goals are simple – to sustain waterfowl populations by conserving landscapes using partnerships guided by sound science.

The Plan came into being in the 1980s when the U.S. and Canadian governments recognized the need for international cooperation to help recover our shared waterfowl and habitat resources. A strategy to restore waterfowl populations through habitat protection, restoration and enhancement became the North American Waterfowl Management Plan. It was signed in 1986 by the Canadian Minister of the Environment and the U.S. Secretary of the Interior. In 1994, Mexico became a signatory, as well.

Through the North American Waterfowl Management Plan and the North American Wetlands Conservation Act, the Service and our partners have invested \$4.5 billion to protect, restore, and/or enhance 15.7 million acres of waterfowl habitat. Popular game species such as mallards and redheads have benefited as have a number of other species that utilize these habitats.

Joint Ventures

The North American Waterfowl Management Plan is the foundation on which hundreds of conservation partnerships have been built. The Plan itself is international in scope, but it is put into action at the regional level through Joint Ventures – dedicated and diverse coalitions of federal, state, provincial, tribal, and local governments; businesses; conservation organizations; and individuals. Although the Joint Ventures originally focused on waterfowl, they now serve the conservation needs of all migratory bird species.

The Service provides base operations funding to support the Joint Ventures as they address local, regional and continental goals for sustaining migratory bird populations. Joint Venture partners with a range of biological and conservation planning expertise develop science-based conservation plans, habitat projects and applied research that benefit migratory birds, not to mention many other wildlife populations, across landscapes.

Nearly two dozen habitat Joint Ventures are at work across the continent, from the Atlantic Coast to the Prairie Potholes of the Upper Midwest to the Southwest's Sonoran Desert. In addition, three species-specific joint ventures address the needs of the black duck, Arctic nesting geese and sea ducks throughout their international ranges.

With the additional funding requested in FY 2009, the Service intends to support four new Joint Ventures and increase the needed funding in the existing Joint Ventures. We are encouraging Joint Ventures to build their capacity and expand to integrate their particular brand of planning and delivery with federal conservation programs, State wildlife action plans and other major landscape-level conservation efforts. This will maximize benefits to birds by influencing the targeting and delivery of some of the most widespread and significant conservation programs.

Continental Bird Conservation Initiatives

Following the model of the North American Waterfowl Management Plan, three other cooperative, continental-scale bird initiatives were born. These plans are tailored for the needs of different types of bird species, but they collectively spell out actions needed to ensure the future of our migratory bird resources. The Migratory Bird Joint Ventures work to meet the objectives of these plans as well.

These plans were developed by coalitions of federal and state agencies, tribal entities, foreign governments, non-governmental organizations, industry, academia, and private individuals who are interested in the conservation of birds. Survey and assessment information on migratory birds is critical to many conservation management programs.

The U.S. and regional Shorebird Conservation Plans provide guidance in achieving the shared goal of restoring and maintaining populations of 50 species of shorebirds that regularly breed or occur in the U.S. These species mark our seasons with their phenomenal migrations; along the way, they rely on the bounty of U.S. coasts and waterways.

The North American Waterbird Conservation Plan has brightened prospects for 210 species of waterbirds, including seabirds, coastal waterbirds, waders and marshbirds. These birds range from the clownish puffin to the stately heron to the elusive rail, but all require healthy aquatic systems under the care of public and private stewards.

The Partners in Flight North American Landbird Conservation Plan completes our suite of broad strategies. It addresses 448 species such as warblers, finches, and orioles, based on the collective knowledge and commitment of hundreds of people.

North American Wetlands Conservation Act

Further supporting the North American Waterfowl Management Plan and the Service's efforts to conserve migratory birds and their habitats is the North American Wetlands Conservation Act (NAWCA). NAWCA provides matching grants to organizations and individuals to work in partnership to carry out wetlands conservation projects in the United States, Canada, and Mexico. These cooperative projects target the needs of migratory birds, but also benefit many other species such as herons, egrets and shorebirds that depend on wetland habitats for survival.

Funding for NAWCA grants comes from annual Congressional appropriations; fines, penalties and forfeitures levied under the Migratory Bird Treaty Act; interest accrued on funds under the Pittman-Robertson Wildlife Restoration Act; and excise taxes paid on small engine fuels through the Dingell-Johnson Sport Fish Restoration Fund.

There are two NAWCA grants: Standard and Small Grants. Both are competitive grants and both require partner matches of no less than one-to-one. Over the life of these programs, the average partner-to-NAWCA dollar ratio has been close to three-to-one. Since 1989, the Service has invested \$700 million NAWCA funds which have been matched by over \$2.0 billion in partner

contributions to improve over 23 million acres of wetlands and associated upland habitats. More than 3,700 partners have been involved in these grants.

Standard Grants support projects in Canada, the United States and Mexico involving long-term protection, restoration and/or enhancement of wetlands and associated uplands habitats. In Mexico, partners may also conduct projects involving technical training, environmental education and outreach, infrastructure development, and sustainable-use studies. Small Grants are awarded only in the United States and support the same type of projects as the Standard Grants. Project activities are usually smaller in scope and involve fewer project dollars – but partners are no less numerous.

Whether on public or private lands, NAWCA projects support the Service's mission to work in partnerships to conserve migratory birds, and ultimately benefit all species that depend on wetlands and related habitats.

Neotropical Migratory Bird Conservation Act

Another important piece of the puzzle when it comes to our bird and bird habitat conservation efforts is the Neotropical Migratory Bird Conservation Act (NMBCA) grant program, which invests in projects aimed at conserving some of the 341 species of Neotropical migratory birds. These birds breed in the United States and Canada and winter south of the border.

NMBCA grants fund projects to protect, research, monitor and manage bird populations and habitat, as well as conduct law enforcement and community outreach and education, in the United States, Canada, Mexico, Latin America and the Caribbean. NMBCA grant projects span the hemisphere from Canadian provinces to South America. Through this program, we work hand-in-hand with national and international bird conservation initiatives such as Partners in Flight and Birdlife International's Important Bird Areas program in the Americas.

Since its inception in 2002, the NMBCA grants program has funded more than 225 projects in 44 U.S. states, 30 Latin American and Caribbean countries, and 12 Canadian provinces. The \$25 million in NMBCA grant funds has been matched with \$97 million from partners such as The Nature Conservancy, the Rocky Mountain Bird Observatory, and ProAves – a four-to-one match ratio. To date, more than 3 million acres of migratory bird habitat have been positively affected through NMBCA-funded efforts. Often, habitat affected by NMBCA grant projects benefit not only Neotropical migrants, but also resident birds and other wildlife.

NMBCA grant funding has nurtured a number of unique partnerships. For example, the Zoological Society of Milwaukee recently received \$14,708, matched with \$44,124, to work with private landowners in Wisconsin to conserve birds shared with Belize in Central America. Pronatura Northeast, a non-governmental organization in Mexico, received nearly \$250,000, which was matched with nearly \$900,000, to work with ranchers in Mexico and New Mexico to manage desert grasslands to be bird friendly and to create "forage banks" that help both ranchers and birds.

The Federal Duck Stamp

The Federal Duck Stamp Program is one of the most successful U.S. conservation initiatives, generating more than \$700 million to acquire and preserve more than 5.2 million acres of migratory bird habitat—an area about the size of the State of Maryland. Although commonly known as the “Duck Stamp,” its full name is the “Federal Migratory Bird Hunting and Conservation Stamp,” which shows that the program is about more than just hunted species. Other wetland wildlife, such as herons, warblers, sparrows, turtles and frogs, also benefit from the program. Ninety-eight cents of every Duck Stamp dollar is used to acquire bird habitat for the National Wildlife Refuge System.

Last month, for example, the Migratory Bird Conservation Commission approved \$4 million to purchase more than 18,000 acres for Glacial Ridge National Wildlife Refuge in northwestern Minnesota. This acquisition will provide important wetland and grassland habitat for a veritable plethora of waterfowl species, including the mallard, northern pintail, blue-winged teal, ring-necked duck, Canada goose and tundra swan.

Birders, stamp collectors, art enthusiasts and other conservationists also buy Duck Stamps to support healthy birds and habitat and add to their stamp collections. In recent years, we have focused on increasing Duck Stamp sales, especially to those non-hunting audiences. But just increasing stamp sales is not enough, as land prices are soaring.

President Bush's 2009 budget proposal asks Congress to increase the price of the Federal Duck Stamp from \$15 to \$25--the first such increase since 1991. The increased revenue, projected at about \$14 million annually, will help us to protect and restore critical habitat for migratory waterfowl. More specifically, the increased funding would allow the Service to acquire an estimated 6,800 additional acres of migratory bird habitat and secure easements for 10,000 additional wetlands per year across the nation.

Strategic Habitat Conservation

As we confront the myriad natural resource conservation challenges of the 21st century, the umbrella over the Service's efforts to meet those challenges is called Strategic Habitat Conservation. Strategic Habitat Conservation is a science-based, adaptive framework for setting and achieving cross-program habitat conservation objectives at multiple scales. We believe that Strategic Habitat Conservation provides the landscape-level conservation framework needed to address the problems migratory birds face on their breeding, migration and wintering grounds.

Strategic Habitat Conservation integrates five functional elements into an adaptive framework: biological planning, conservation design, conservation delivery, decision-based monitoring and assumption-driven research. The essence of Strategic Habitat Conservation begins and ends with explicit resource population objectives for a key species or group of key species. These objectives are met by applying models and conservation biology principles to define the ecological conditions that must be sustained at the landscape scale by delivering conservation priorities at the site scale.

The U.S. Geological Survey is also working to provide science for Service's implementation of Strategic Habitat Conservation. Strategic Habitat Conservation is a multi-pronged, iterative process whereby species goals are articulated, models and maps of species populations are developed, with U.S. Geological Survey involvement, and Service programs deliver conservation resources to areas that are determined to be most effective. Finally, U.S. Geological Survey participation is applied to monitor and evaluate the program to ascertain whether management actions were effective in meeting identified conservation goals. This evidence-based conservation process helps to establish subsequent population goals and generate models and maps of population abundance and distribution to articulate the next phase of conservation action. The value of Strategic Habitat Conservation is its clear and transparent identification of agency goals, focused progress towards those goals, and the ability to measure progress and learn from success and failure.

Strategic Habitat Conservation is not a completely new concept for us. The principles of Strategic Habitat Conservation have long been used by the Joint Ventures in their conservation planning for birds. This planning uses the best available scientific information to predict how bird populations respond to habitat conservation and other management activities. As the Joint Venture partnerships implement Strategic Habitat Conservation, they create the biological science and the conservation partnership base that will allow states and other partners to pool resources for regional projects in critical habitats for priority bird species.

Conclusion

The Service and the U.S. Geologic Survey are committed to conserving and effectively managing wild bird populations. We will continue to work with our partners and with other nations to protect healthy bird populations, and reverse declining populations. We welcome the Committee's interest in strengthening U.S. efforts in this arena and appreciate the opportunity to participate in this hearing. This concludes our prepared remarks, and we would be happy to respond to any questions that you may have.