



# Fish & Wildlife *News*

**Special  
Issue:  
Migratory  
Birds**



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Rowan Gould



Acting Director;  
Rowan Gould

## The Value of Birds

There's no question we are living in an era of great challenge. From environmental stresses caused by accelerating climate change to turmoil in the global economy, our world is in a state of unrest. But the sights and sounds of nature can offer us sanctuary in these unsettling times. One only has to look to the skies to see the wonder of nature manifested in the graceful flight of birds on their migratory path, a gentle reminder that life endures through seasons of hardship and abundance.

The United States, is home to a tremendous diversity of native birds, with more than 800 species inhabiting terrestrial, coastal, and ocean habitats. Among these species, 67 are Federally-listed as endangered or threatened. In addition, more than 184 species have been designated as species of conservation concern due to a small distribution, high-level of threat, or declining populations.

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*One only has to look to the skies to see the wonder of nature manifested in the graceful flight of birds on their migratory path...*

Birds are beautiful, economically important, and a priceless piece of America's natural heritage. Birds are also highly sensitive to environmental pollution and climate change, making them critical indicators of the condition of the environment. Whether ecosystems are managed for agricultural production, wildlife, water, or tourism, the health of the land can be measured by the health of the birds. A decline in bird numbers can warn us we are damaging the environment through habitat fragmentation and destruction, pollution and pesticides, introduced species, and any number of other negative impacts.

This issue of *Fish & Wildlife News* focuses on birds not only to remind us of their value, but also to highlight their fragile existence on this planet. From shorebirds in New England, to warblers in Michigan, to songbirds in Hawaii, we are seeing disturbing downward trends that should set off environmental alarm bells. These trends are highlighted in a feature

article about *The U.S. State of the Birds* report, which synthesizes data from three, major, long-running bird censuses conducted by thousands of citizen scientists and professional biologists.

The report documents a 40 percent decline in grassland birds over the past 40 years, a 30 percent decline in birds of arid-lands, and high concern for many coastal shorebirds. Further, 39 percent of species dependent on U.S. ocean areas have declined.

However, the report also reveals convincing evidence that bird populations can respond quickly and positively to conservation action. The data show dramatic increases in many wetland birds such as pelicans, herons, egrets, osprey, and ducks, a testament to the numerous cooperative conservation partnerships that have resulted in protection, enhancement and management of more than 30 million wetland acres in recent years.

This issue of the News also includes a variety of stories that underscore the value of birds and the Service's critical role in conserving them. These include:

- A feature on the 20th anniversary of the North American Waterfowl Conservation Act
- Landmark legislation that provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico for the benefit of wetlands-associated migratory birds and other wildlife.

You will also read about the Service's waterfowl monitoring program; the role of our National Wildlife Refuge System in providing habitat for migratory birds, as well as recreational opportunities for hunters, wildlife watchers, photographers and other outdoor enthusiasts; and Service programs across the nation that are helping to ensure healthy bird populations for future generations to enjoy.

Let's celebrate birds, whose songs fill the air with rebirth, renewal and delight. It is an encouraging message that can help us through difficult times and inspire us as we proudly work to conserve the nature of America. □



## Working Together for Birds — and Wildlife

Migratory birds are among nature's most magnificent natural resources, and they play a significant ecological, economic and cultural role in the United States and across the globe. Birds are indicators of the health and quality of our environment, and each year millions of Americans watch birds in their backyards and at refuges and parks around the nation and the world.

The Migratory Bird Program of the U.S. Fish and Wildlife Service enjoys a rich and successful conservation tradition. It has been instrumental, on its own and with partners, in delivering bird conservation throughout the hemisphere for more than 800 species of migratory birds and their habitats.

The Fish and Wildlife Service alone cannot achieve the conservation of all migratory birds and habitats. It takes the collective and coordinated efforts of thousands of partner organizations and citizens to do this.

The Service, through the Migratory Bird Program, serves as a leader, catalyst and facilitator for local, regional, national and international partnerships to protect, restore and manage native migratory birds and their habitats for future generations. Our partners are crucial to carrying out conservation activities worldwide.

Within the Migratory Bird Program, our work with partners, volunteers, and citizen scientists supports some of our key activities, from surveys and monitoring to habitat conservation activities.

The most recent example illustrating the critical need for partnerships to conserve birds and bird habitat is the State of the Birds Report, which Interior Secretary Ken Salazar released on March 12. This document represents the first comprehensive report on bird populations ever produced in the United States. Not surprisingly, it is the work of a team of partners — including scientists from the government, academia and nonprofit conservation organizations.

The State of the Birds Report shows that nearly a third of the nation's bird species are endangered, threatened or in significant decline due to habitat loss, invasive species, and other threats. At the same time,

the report highlights examples, including many species of waterfowl, where habitat restoration and conservation have reversed previous declines, offering hope that it is not too late to take action to save declining populations. Many of these examples feature projects and initiatives that could not have succeeded without many partners.

The State of the Birds Report was years in the making, and relies on data from significant bird-monitoring databases, including data from thousands of citizen scientists and professional biologists. We used data from three continent-wide monitoring programs to create bird population indicators for major U.S. habitats, reflecting the health of these habitats and the environmental services they provide.

The problems and challenges are large and clear, but hope is just as real. When we focus our efforts strategically and work together, "yes we can" make a difference in birds and other wildlife. □

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*Paul Schmidt is the Service's Assistant Director for Migratory Birds.*

*Paul Schmidt and his son Andrew hunting at a Youth Hunting day in Virginia.*



## New Service Director Named

The U.S. Senate recently voted to confirm Sam D. Hamilton to be the new Director of the Service. A career Service employee with over 30 years of experience, Hamilton will lead the nation's principal Federal agency dedicated to the conservation of fish and wildlife and their habitats, with nearly 9,000 employees located in all 50 states and U.S. territories. A career senior biologist and manager with the U.S. Fish and Wildlife Service, Hamilton had been director of the agency's Southeast Region in Atlanta, Georgia, where he was responsible for the oversight and management of more than 350 federally listed threatened and endangered species and 128 national wildlife refuges. As senior operating executive, he had full strategic planning and management responsibility for a \$484 million budget and a 1,500-person work-force that operates in 10 states and the Caribbean.

Hamilton's leadership fostered creative solutions and innovation that led to the establishment of a carbon sequestration program that has helped biologists in the Southeast restore roughly 80,000 acres of wildlife habitat. His emphasis on partnership bolstered the Service's fisheries program and helped establish the Southeast Aquatic Resources Partnership to restore vital aquatic habitats across the region. This partnership is a key piece of the National Fish Habitat Action Plan.



Hamilton provided leadership and oversight to the department's restoration work in the Everglades, the largest ecosystem restoration project in the country, and oversaw recovery and restoration work following Hurricanes Katrina and Rita, which devastated coastal wetlands, wildlife refuges, and other wildlife habitat along the Gulf of Mexico.

Prior to becoming regional director, Hamilton served as assistant regional director of the ecological services in Atlanta and the Service's Texas state administrator in Austin.

Hamilton graduated from Mississippi State University with a Bachelor of Science degree in biology in 1977. □

## Returning the Service to its Scientific Roots

*The launch of peer-reviewed journals is the latest example of the Service's renewed commitment to empowering the scientific endeavors of our employees.*

From its inception, the Fish and Wildlife Service has been a leader in the development and application of science to professional wildlife management. From the creation of the world's most comprehensive waterfowl surveys to the pioneering work on the effects of DDT on migratory birds conducted at Patuxent Research Refuge, the Service quietly built a reputation for science excellence that spanned decades.

This legacy of investment in and support for science underpinned the work of great conservationists such as Ira Gabrielson, Lucille Stickell and Rachel Carson. However, it's no secret that the loss of the Service's research capabilities more than 15 years ago significantly impaired our ability to direct research in support of conservation objectives.

As part of a multi-year effort to renew and reinvigorate the Service's capacity to deliver science-based wildlife management, the Service will soon launch two agency-sponsored, peer-reviewed scientific journals, the *Journal of Fish and Wildlife Management* and *North American Fauna*. Detailed information about journals can be found at <[www.fws.gov/science/publicationsys.html](http://www.fws.gov/science/publicationsys.html)>.

Service Science Advisor Dan Ashe emphasizes that the new publications are not intended to replace other external peer-reviewed journals. The Service continues to support and

encourage its scientists to publish in external journals, at their discretion. The revitalized Service journals will help facilitate publication and dissemination of results for the important science the Service engages in that did not previously have standardized peer reviewed outlets.

In order to ensure that the journals meet accepted standards for academic freedom, the Science Committee worked with the Director's office to develop Director's Order No. 196, which makes clear that articles published by employees in the *Journal of Fish and Wildlife Management* and *North American Fauna*—as well as articles authored by Service employees and published in outlets external to the Service—are not subject to official policy review.

"This is an empowering permission and encouragement for employees to publish their scientific work, with official attribution, but without the uncertain and potentially unnerving glare of "policy review." It is a hearty vote of confidence in the responsibility and professionalism of Service employees," said Ashe.

With this Director's Order, the Service has eliminated the confusing and inconsistently applied requirement for policy review of scientific papers that has long been in the Service manual. The order is available at: <[www.fws.gov/policy/do.cfm](http://www.fws.gov/policy/do.cfm)>, and will ultimately be incorporated into the Service manual. The order complements the Service's previously issued peer review >>

**Science, continued from page 3**

policy and Code of Scientific and Professional Conduct, providing a firm platform for ethical and responsible scientific endeavor.

The order represents a significant step forward in encouraging and empowering employees to publish their research findings, and to do so using their official agency and office affiliation. Because these articles are not subject to formal policy review and approval, the order requires authors to add a disclaimer stating that “the findings and conclusions in this article are those of the author(s) and do not necessarily represent the views of the U.S. Fish and Wildlife Service.”

As always, documents that require the full endorsement and imprimatur of the Service must undergo specific review for both scientific quality and policy, defined elsewhere, and will be published as official Service publications through outlets, such as the Federal Register. This process remains unchanged and is not addressed in Director’s Order No. 196.

The launch of these journals is just the latest example of the Service Science Committee’s efforts to restore the Service’s scientific culture. The Science Committee is dedicated to expanding the Service’s ability to acquire, apply and communicate scientific information; promoting active involvement of the Service and its employees in the larger scientific community;

encouraging strengthened partnerships between the Service and other scientific organizations; and perhaps most important—fostering the next generation of Service scientists.

The committee is chaired by Dan Ashe, Science Advisor to the Director, and includes an Executive Oversight Council, chaired by Paul Schmidt, the Service’s Assistant Director for Migratory Birds. Service employees John Wenburg, Teresa Woods and Anne Roy provide additional support and commitment.

“The Service Science Committee has provided a strong source of leadership and outstanding direction to strengthen our organizational support for science. I see this new series of internal publications, and the Director’s Order on policy review, as another significant step forward. A culture of support for scientific endeavor is crucial to our mission success,” said Schmidt.

As part of its work, the committee secured funding and support for a state-of-the-art electronic literature search capacity, which brings today’s best science to every employee’s desktop and laptop. In addition, the group is constantly expanding and improving technical course curriculum at the National Conservation Training Center in conservation biology, modeling, decision science and other key capacities to support strategic landscape conservation and address complex challenges like climate change.

Efforts are also moving forward to secure additional funding to increase the Service’s science capacity on a broader scale. The Administration’s FY 2010 budget framework includes an additional \$20 million for the Service to fund priority conservation science in biological planning and conservation design; risk and vulnerability assessment; inventory and monitoring; conservation genetics; and population and habitat assessment.

This increase represents the first step in a multi-year investment in scientific capacity supporting 21st Century mission success for the Service: The Conservation Science Investment (CSI) Strategy.

“The CSI Strategy provides the science support needed to drive our Strategic Habitat Conservation framework for landscape-scale conservation and our emerging Climate Change Strategic Plan,” said acting Service Director Rowan Gould.

These are exciting new steps forward in advancing the Service’s needs to effectively manage the nation’s fish and wildlife populations and their habitats. Learn more at <[www.fws.gov/science](http://www.fws.gov/science)>. □

*John Wenburg and Teresa Woods*

**Classroom in the Wild**



DONNA DEWHURST

High school sophomores and juniors set up tents as part of the Innoko National Wildlife Refuge science camp in Alaska. The camp is a cooperative effort of this remote refuge, the Iditarod area school district and other partners, to increase students’ biological knowledge and stewardship of the environment. Students earn science credits and learn, among other things, fire management, animal trapping, stories from tribal elders, fish dissection, nature art and orienteering. <[innoko.fws.gov/education.htm](http://innoko.fws.gov/education.htm)>.

## A Strategic Habitat Conservation Approach in the Atlantic Coast Joint Venture

The Atlantic Coast Joint Venture (ACJV) is a partnership of federal, regional and state agencies and organizations focused on conserving habitat for native bird species in the Atlantic Flyway from Maine to Puerto Rico. The joint venture coordinates planning, delivery and evaluation of bird habitat conservation, resulting in more effective and efficient conservation and the ability to focus limited resources on continental, national, flyway and regional bird conservation priorities.

The joint venture facilitates bird conservation partnerships at multiple scales, leverages funding, enhances communication and uses a sound biological foundation to assess the status and needs of species, relate species and habitat priorities to specific geographic areas and projects, and evaluate the impacts of conservation actions.

The Atlantic Coast Joint Venture is one of 14 bird habitat joint ventures in the United States and Canada. As with all habitat joint ventures, the ACJV organizes its actions around the framework and elements of Strategic Habitat Conservation as defined by the U.S. Fish and Wildlife Service and U.S. Geological Survey.

Strategic habitat conservation (SHC) is a science-based approach to conservation focused on providing landscapes that can sustain trust species populations at objective levels. This approach is founded on an adaptive process of biological planning, conservation design and delivery, monitoring, and research.

### Bird Conservation Planning in the South Atlantic Coastal Plain

Like most joint ventures, the ACJV organizes its conservation planning around bird conservation regions (BCRs)—ecologically distinct regions with similar wildlife communities, habitat conditions and resource management issues. Joint Venture staff and partners have taken a lead role in planning in BCRs partly or wholly within its boundary.

In the South Atlantic Coastal Plain, the ACJV has worked since 1999 with partners in Virginia, North Carolina, South Carolina, Georgia and Florida to prioritize species and habitats, assess population status and distribution, articulate measurable population objectives for selected priority species stepped down from continental and regional bird conservation plans, consider population limiting factors, and identify priorities for bird habitat conservation, monitoring and research.

A conservation plan for this area articulates these priorities and identifies geographic focus areas. Working groups in each state and many of the focus areas use this planning to prioritize projects for funding through grant programs such as the North American Wetlands Conservation Act. In the Atlantic Flyway alone, approximately \$38 million has been awarded through NAWCA grants to conserve 225,000 acres at 77 project sites. More than 220 partners provided \$176 million in matching funds.

Detailed conservation design efforts for the South Atlantic Coastal Plain are now underway through a cooperative project between the ACJV, North Carolina State University and Auburn University. The objective is to develop a consistent methodology and enhance the capacity of states, joint ventures and other partners to assess and design sustainable landscape conservation for birds and other wildlife in the eastern United States.

Specifically, this project is developing and implementing a framework and tools to assess the capability of habitats in ecoregions in the eastern United States to support bird populations; predict impacts of landscape-level changes on future capability of these habitats to support bird populations; target conservation programs to achieve objectives in State Wildlife Action Plans and bird conservation plans and evaluate progress under these plans; and enhance coordination during planning, implementation and evaluation of habitat conservation through conservation design.

Products include bird-habitat models for priority species representing key habitat types in the ecoregion and decision support tools allowing managers to target habitat protection, restoration and enhancement. This approach, being piloted in the South Atlantic Coastal Plain ecoregion, will be expanded to include the entire ACJV area.

### Atlantic Flyway Waterbird Monitoring and Management

In addition to working at the ecoregional scale in bird conservation regions, ACJV partners work at the flyway scale.

Partners from throughout the Atlantic Coast coordinate monitoring and management for shorebird, waterfowl and wading bird species that migrate and winter along the coast. The purpose is to help make informed conservation and management decisions at multiple scales. ACJV and Migratory Bird Program staff are working with staff and partners from national wildlife refuges, U.S. Geological Survey and states to design monitoring to guide management decisions.

A series of structured decision making workshops have guided the development of this program. Monitoring protocols and databases are being developed to make consistent information on these waterbird species and habitats throughout the flyway easily available to managers. A refuge manager in the mid-Atlantic will be better informed of how that refuge fits into the network of managed lands up and down the coast and how to manage to meet the greatest needs for migrating and wintering waterbirds.

This program closely follows the adaptive management approach of SHC by providing information to guide decisions and providing monitoring to evaluate the effectiveness of those actions. □

*Andrew Milliken, Coordinator,  
Atlantic Coast Joint Venture*

## Birding on Refuges Draws People Closer to Nature

Relatively undisturbed, and built around historical migration stopover points, the lands and waters that make up the National Wildlife Refuge System provide protected habitat for more than 700 species of migratory birds, waterfowl, shorebirds and grassland birds across the country.

Birders from across the nation and world flock to national wildlife refuges during spring and fall migrations to catch a glimpse of not only the birds, but also the wildlife that call these natural communities home. In 2006, the U.S. Fish and Wildlife Service joined forces with partner organizations and agencies to develop a National Wildlife Refuge System Birding Initiative and Birders Team, which are working together to build quality visitor experiences on refuges for birders and wildlife viewers.

The Birders Team is made up of expert birders, biologists, refuge managers, visitor services staff, conservationists and members of the business community dedicated to strengthening the relationship between national wildlife refuges and the birding community.

“There are more than 50 million Americans that consider themselves part of the birding community—whether at an amateur or expert level,” said Jim Leach, Midwest Region refuge supervisor.

The Birders Team is working to expand the opportunities that national wildlife refuges offer to those 50 million Americans who make birding a part of their lives.

“Growing that connection between refuges and birders also ensures continued conservation of the birds, and the habitat they depend on for survival,” Leach said.

Midwest Region Visitor Services Supervisor Maggie O’Connell says that wildlife photographers and observers, including birders, make up 75 percent of visits to national wildlife refuges.

“The sounds, colors and movements of birds really engage people in a very unique way that is different from other wildlife viewing,” O’Connell said.

The Service partnered in 2008 with Cornell Lab of Ornithology to share information and resources on education, citizen science and conservation programs. For example, the Service is providing information and resources for field stations to implement BirdSleuth, an inquiry-based science education curriculum. BirdSleuth uses a Web-based program, eBird, to engage both children and adults in bird research on refuges.

The Cornell Lab of Ornithology’s Citizen Science Programs, from Project Feeder Watch to Celebrate Urban Birds, allow people from across the world to



*Greater prairie chicken.*

participate in real research that benefits the species in their local communities. National wildlife refuges can use these programs to teach students about the scientific process, from making observations and collecting data to data analysis and drawing conclusions.

eBird allows birders to record online bird sightings at refuges and keeps a running tally of bird populations throughout the year at a given refuge. This data in turn helps scientists analyze migration trends and informs conservation efforts for resident bird populations.

As part of the Birding on Refuges initiative, 80 refuges across the country were given field guides and binoculars to loan refuge visitors, thanks to contributions from Vortex Optics and Houghton Mifflin Harcourt publishers. The Eastern Shore of Virginia National Wildlife Refuge, located at the tip of the Delmarva Peninsula,

loans binoculars and bird identification guides to birding visitors year-round.

“The refuge acts as an avian migration funnel, hosting thousands of songbirds, raptors, waterfowl, shorebirds, wading birds and monarch butterflies to rest and feed before continuing their journeys to southern wintering grounds,” said Dorie Stolley, visitor services manager at the refuge. “The new binocular and field guide lending program allows for a successful birding trip in any season!”

Birders and wildlife observers are also being encouraged to contribute to their National Wildlife Refuge System by purchasing a Federal Duck Stamp.

“One of the best ways for birders to give back to the birds they know and love is to buy a Federal Duck Stamp,” said the Midwest Region’s Jim Leach.

REX JOHNSON / USFWS

Ninety-eight percent of the \$15 Duck Stamp investment goes directly toward permanently protecting wetlands, grasslands and other habitat on the National Wildlife Refuge System. The most successful conservation program in U.S. history, the Federal Duck Stamp has helped generate more than \$700 million to purchase and protect more than 5.2 million acres for the benefit of migratory birds and resident wildlife. As part of the Birding Initiative, each region now has two portable banners for loan to encourage refuge visitors to purchase Duck Stamps.

Bob Russell, a biologist with the Fish and Wildlife Service's Midwest Region, has been an avid birder since grade school, and was exposed at an early age to birds in both an urban and a rural setting.

"Growing up in the Chicago area, I would see goshawks drop into my backyard," Russell said. "My dad, a science teacher, would also take me out to grandpa's farm to go birding."

Russell has traveled far and wide as a birder and biologist, and offers up his expert opinion on some of the birding hotspots in his neck of the woods:

Rated as one of Birder's World readers' 15 birding hotspots in the country, Ottawa National Wildlife Refuge in northern Ohio welcomes birding enthusiasts during the spring as migratory waterfowl and songbirds pile up on the south end of Lake Erie. Just 15 miles east of Toledo, Ottawa sits on a small fraction of what once was the 300,000-acre Great Black Swamp, and is recognized as an Important Bird Area by the American Bird Conservancy.

Forty percent of waterfowl in the United States use the Mississippi Flyway, and nestled right along this avian corridor is the Upper Mississippi River National Wildlife and Fish Refuge, which extends 261 miles from Wabasha, Minnesota, to near Rock Island, Illinois.

"During spring migration, you can see upwards of 3,000 bald eagles and during late fall, around November, you can see upwards of 20,000 tundra swans," Russell said.

More than 20 percent of the entire eastern tundra swan population uses the refuge as a staging area.

Seney National Wildlife Refuge, a popular tourist area in Michigan's Upper Peninsula, hosts a mosaic of birds and wildlife, with more than 96,000 acres of diverse habitat ranging from marsh, swam and bog to grassland and forest.

"Seney is a great place for a wildlife drive — you can see nesting loons, yellow rails, sandhill cranes and trumpeter swans all in one visit," Russell said.

Seney is well-known for its trumpeter swan recovery program which began in the 1990s, and has brought the endangered species back from near extinction.

Squaw Creek National Wildlife Refuge was established as a refuge and breeding ground for migratory birds and other wildlife. Located in northwest Missouri, the refuge comprises more than 7,000 acres of loess hills,



FLOCKY / JOHNIDA BOCKENS

*Birders at the Upper Souris National Wildlife Refuge in North Dakota.*

woodlands and grasslands. Squaw Creek is known for its remarkable display of hundreds of thousands of snow geese during spring and fall migration.

"The sound of nearly half a million snow geese can be deafening and even intimidating, but the sight is remarkable and it makes Squaw Creek a sure birder's favorite," Russell said.

"Glacial Ridge National Wildlife Refuge in Minnesota is a new hotspot for both birders and wildlife watchers," Russell said.

Glacial Ridge, located in northwest Minnesota, recently acquired more than 15,000 acres of native tallgrass prairie and more than 8,000 acres of wetlands.

"Visitors have a chance to see not only rare prairie birds, like the federally endangered prairie chicken, but also larger land mammals like the occasional moose and or timber wolf."

The National Wildlife Refuge System offers an extensive network of diverse habitats that provide homes and resting places for more than 700 species of birds. Birding is a growing recreational activity for children and adults alike, and offers quality outdoor experiences for people of all ages and demographics. The Service's Birding on Refuges Initiative and Birders Team will continue to explore new ways to engage and facilitate quality outdoor experiences for birders and wildlife viewers on these public lands. □

*Ashley Spratt, Public Affairs, Region 3*

## USDA Bill Addresses FWS Conservation Initiatives

Federal trust species will benefit under the new Farm Bill, which directs the USDA to address fish and wildlife conservation initiatives when establishing program priorities for some Farm Bill conservation programs, according to Dave Walker, Farm Conservation Programs Coordinator for the U.S. Fish and Wildlife Service.

The U.S. Department of Agriculture never excluded fish and wildlife as conservation priorities, Walker emphasized; the difference now is the specific direction from Congress to ensure fish and wildlife resource goals and objectives are being considered. USDA and its conservation partners “have a great opportunity to better integrate fish and wildlife resource needs throughout the process of program implementation and evaluation,” he said.

The directive requiring USDA to address fish and wildlife and other conservation initiatives can be found under several programs discussed in Title II of the bill, officially known as the Food, Conservation and Energy Act of 2008. Those programs include the Conservation Reserve Program, Grassland Reserve Program, Wildlife Habitat Incentives Program and Cooperative Conservation Partnership Initiative.

Each reauthorization of the Farm Bill since 1985 has added conservation programs and increased conservation funding. The latest reauthorization, in June 2008, authorizes \$25 billion in the next five years for voluntary, incentive-based

agricultural conservation programs. The programs provide financial and technical assistance to farmers, ranchers and forest landowners who implement conservation practices on their lands.

The new language in the 2008 bill is of particular interest to the Service, state fish and wildlife agencies, and other conservation partners involved in Farm Bill conservation programs, including Ducks Unlimited, the National Wild Turkey Federation and Pheasants Forever. That language directs USDA to “address issues raised by state, regional and national conservation initiatives.”

In a separate report, the managers of the House and Senate Conference explained their intent with the new language is for USDA “to consider the goals and objectives identified in relevant fish and wildlife conservation initiatives when establishing State and national program priorities, scoring criteria, focus areas or other special initiatives.” Examples of such initiatives include the North American Waterfowl Management Plan, the National Fish Habitat Action Plan and the Greater Sage-Grouse Conservation Strategy.

In layman’s terms, Walker said the bill discourages “random acts of environmental kindness.” Since there is not enough money for everyone who applies, he said, the idea is to concentrate the money that is available on conservation priorities already identified in existing plans and initiatives.

This means ranchers and farmers who may have worthy conservation projects may not receive funding unless their proposals mesh with already established conservation priorities.

If a state’s priority is maintaining healthy populations of sage grouse, farmers and ranchers proposing projects that will enhance sage grouse habitat should receive higher scores on their applications, he said. Likewise if habitat in one area of a state is identified as a high priority for conservation, farmers and ranchers in that area should be in line for funding.

While there is pressure to do the opposite — to try to accommodate everyone who applies for funding, Walker noted that USDA should benefit from the change as well. USDA will be able to report to Congress on program accomplishments in terms of specific conservation outcomes identified in relevant conservation initiatives.

Walker added that other conservation priorities, such as water and soil quality enhancement, will still receive funding. “But fish and wildlife will get a fair share of program resources and program attention,” he said. All participation in Farm Bill programs is voluntary; applicants whose projects promise the greatest environmental benefit are most likely to get funded.

Additional directives in the new bill include:

- Developing markets for environmental services. As Walker explained, farmers or ranchers might be able to sell credits, such as water quality credits or carbon sequestration credits, on the free market. Businesses having trouble meeting water quality, carbon emission or other environmental standards might want to purchase environmental credits from a landowner who is providing environmental benefits through application of conservation practices.
- Emphasizing conservation and creation of habitat for bees, bats, birds, butterflies and other pollinators. “Pollinator conservation has not been cited in previous Farm Bills,” Walker said. “Now, where there are opportunities, we’re to emphasize practices that will benefit pollinators.”
- Encouraging conservation of threatened and endangered species by allowing taxpayers to deduct expenditures made to achieve management actions recommended in species recovery plans under the Endangered Species Act.

Rules implementing the changes made in the 2008 Farm Bill are still being developed, but Walker cited as least one change that will impact funding eligibility. The new bill excludes public land owners including state and local governments from participating in these two programs. This means program funding will be limited to private and tribal lands, and state and local governments

will need to find other sources of funding for habitat restoration efforts on their lands.

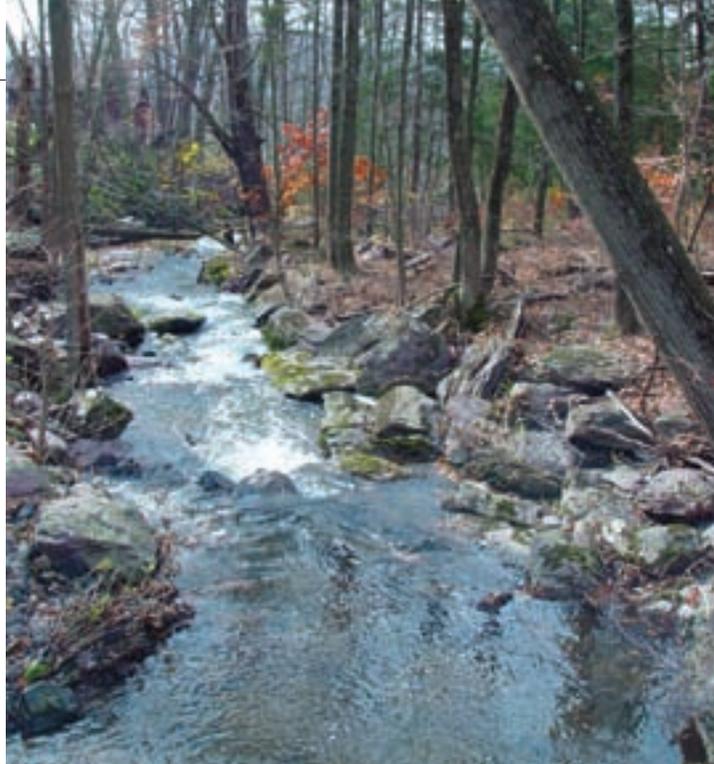
The updated conservation provisions of the Farm Bill also include new incentives for participation in the Conservation Reserve Program, the nation's largest public-private partnership for conservation of wildlife habitat, with enrollment currently at about 35 million acres. The incentives include additional payments for specific practices such as restoration of bottomland hardwood forest and prairie pothole duck nesting habitat.

With these increased payments, farmers and ranchers could be in line for reimbursements of up to 90 percent for restoration costs and a 20 percent increase in annual rental payments.

Another incentive, at \$3 per acre for the life of the contract, is intended to encourage public access on at least 7 million acres of Conservation Reserve Program lands in the next five years. Public uses could include hunting, fishing and wildlife viewing.

A separate Voluntary Public Access and Habitat Incentive Program authorized under the new Farm Bill allows state and tribal governments to apply for and administer grants to encourage landowners to open their properties to public use. The program has been authorized at \$50 million for the next four years. The grants could be used to enhance existing programs or establish programs in states without public access programs. □

*Jennifer Anderson, freelance writer, Virginia*



*Cherry Valley National Wildlife Refuge*

## Hard Work Pays Off in Cherry Valley

Cherry Creek carves its way through a pastoral valley nestled along Kittatinny Ridge, a migratory highway for birds and bats in northeastern Pennsylvania. Centuries of geologic events, glaciation and hydrologic forces have created rare natural areas unique to this Central Appalachian landscape. From the Appalachian Trail which runs along the ridge's crest, one can witness the rich natural resources and agricultural history within Cherry Valley below.

On one of his last days in office in late December, former Service Director H. Dale Hall, approved Cherry Valley National Wildlife Refuge by establishing a boundary around potential refuge land. His decision was hailed by valley residents and local elected officials—who for years have strongly advocated for the creation of a new refuge—along with the conservation community, natural resource agencies, Pennsylvania's Congressional delegation and a host of others.

The notion of establishing the refuge first occurred in the late 1990s, when Service biologists

were considering ways to protect important habitat for the bog turtle, a federally threatened species. The outpouring of community support for the idea escalated as the area's population continued to grow. Located less than a two-hour drive from New York City and Philadelphia, Cherry Valley has experienced a surge in residential development that has threatened its rural, agricultural character.

U.S. Representatives Paul E. Kanjorski observed, "rarely in my career in Congress have I experienced such overwhelming local support for a legislative endeavor as I have encountered for the designation of a national wildlife refuge in Cherry Valley." Kanjorski and fellow Congressman Charles W. Dent co-sponsored a bill in 2005 on behalf of their constituents to consider the potential for establishing the refuge in their districts. Identical legislation was introduced in the Senate by then Senator Rick Santorum and co-sponsored by Senator Arlen Specter.

The 109th U.S. Congress approved the Cherry Valley National Wildlife Refuge Study Act in 2006. The study and an environmental assessment required under the National Environmental Policy Act were completed in fall 2008, recommending refuge establishment.

"Cherry Valley National Wildlife Refuge will protect a rare and important landscape for both people and nature. The people of Cherry Valley... have loved this land for generations and have worked hard to bring this refuge to life," said Bill Kunze, Pennsylvania state director for The Nature Conservancy.

Where Cherry Creek pours into the Delaware River, the refuge boundary meets the southern reach of the Delaware Water Gap National Recreational Area, a national park that protects a 40-mile stretch of the river. The new refuge is also ecologically connected to the Wallkill River National Wildlife Refuge and other conservation lands within the Delaware River watershed.

"The past generation of landowners who relied on this land for their livelihood would be so pleased to know their hard work and dedication to Cherry Valley was not in vain. Conservation-minded landowners now have another option available to them to preserve their land, and we can move forward with protecting habitat for rare and endangered species and the rich history of Cherry Valley," said Debra Schuler, local landowner and president of the Friends of Cherry Valley. □

*Terri Edwards, External Affairs, Region 5*

## Celebrating Birds in Culture: International Migratory Bird Day

Our cultural relationship with birds and the joy they bring us is exemplified this year by the theme for International Migratory Bird Day (IMBD): Celebrating Birds in Culture.

While the annual International Migratory Bird Day celebration is officially recognized on the second Saturday in May, people all over the Western Hemisphere celebrate throughout migratory bird seasons. Events held this year at national wildlife refuges, nature centers, schools, and public libraries will celebrate not only the wondrous migration of birds, but also the importance of birds in our culture.

Birds are represented in ancient petroglyphs, totem poles, ceremonial attire, and contemporary jewelry and pottery from native cultures. Because birds fly between earth and sky, many indigenous people consider birds to be messengers between humans and the spirits. Traditional stories about birds, whether mythological spirits like the Thunderbird, or bird species such as the raven, eagle, and hummingbird, demonstrate the importance of birds to these cultures.

Many Native people depended on birds as part of their seasonal food cycles, hunting waterfowl and other birds. Birds have significance in myths, legends, symbols, ceremonies, art, clan names, and in many other ways among tribal cultures in the Americas. In the U.S., 52.7 million acres of land belong to Indian tribes and individuals and the Bureau of Indian Affairs manages 66 million more in trust. With a strong cultural connection and stewardship of so much land, American Indian tribes, Native Americans, First Nations,

and Alaskan Natives play an important role in bird conservation.

Environment for the Americas, home of International Migratory Bird Day, is a non-profit organization working to increase awareness of birds and their conservation throughout the Western Hemisphere. Environment for the Americas is committed to providing environmental education opportunities and materials by providing the framework and education materials for bird

festivals and events; hosting a directory of bird education resources; offering bird workshops for educators; and motivating people of all ages to get outdoors to learn about birds.

Events are mapped and placed in a calendar available on-line. For more information visit <[www.birdday.org](http://www.birdday.org)>. □

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*Susan Bonfield, Executive Director, Environment for the Americas and Alicia F. King, Communication Coordinator, Region 9*

FLICKR / NINETTE LAYNE



*A rufous hummingbird in the Nisqually National Wildlife Refuge in Washington.*

## U.S.-Japan Coordination Meetings Allow Open Dialogue

Wildlife managers and scientists from the United States and Japan had the opportunity to enhance coordination of shared bird species improve dialogue and plan for future cooperation on bird resources of the East Asia/Australasia and Pacific flyways at a February meeting in Hawaii.

The meeting provided an opportunity to highlight international aspects of Hawaiian and Pacific Island conservation issues.

Paul Schmidt, the Service's Assistant Director for Migratory Birds, chaired the meeting, a biennial discussion of the 1974 Convention between the Government of the United States of America and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction, and their Environment. Nanette Seto of the national Migratory Bird Program coordinated the gathering, hosted in Region 1 at the initiative of Brad Bortner, Division Chief for Migratory Birds and Habitat Programs.

Peter Ward, of the Service's Division of International Conservation, which oversees implementation of the convention, served as liaison in arrangements with our foreign colleagues. Other Service staff attended, as well observers from the National Park Service and the U.S. Geological Survey. Seven delegates from Japan,

representing Japan's Nature Conservation Bureau of the Ministry of the Environment and Japanese non-governmental organizations, attended the meeting as well as one observer from BirdLife Asia.

Discussion topics included research and monitoring projects on shared shorebird, seabird, and waterfowl species, updates on avian influenza surveillance projects, climate change, communication tower and wind power conflicts with migratory birds, island restoration projects, and seabird bycatch.

Four representatives from Russia also attended the meetings, allowing the three nations to converse about migratory bird research and management issues of common interest. The meeting ended with a field trip to the James Campbell National Wildlife Refuge on Oahu and the Ka'ena Point State Natural Area Preserve, where participants got close-up views of endangered waterbirds, shorebirds and nesting Laysan albatrosses.

Improved coordination between the three countries resulting from these meetings will continue to further conservation efforts for our shared migratory birds. □

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*Nanette W.H. Seto, Division of Migratory Bird Management, Region 9*

## Windows Don't Have to Be Deadly



*The view from a classroom at the National Conservation Training Center in Shepherdstown, West Virginia.*

It has been estimated that 975 million migratory birds are killed every year in the United States by flying into plate glass windows. Birds cannot perceive transparent or reflective glass as a barrier to be avoided. The greatest hazard exists when they are migrating and simply cannot see tall buildings, especially during inclement weather or when the buildings are lit during night migration. Bird strikes to windows are increased when habitat is reflected by large panes of glass, or when transparent glass allows views of habitat through the building. Window strikes, unfortunately, are usually fatal.

There are, however, a few methods that can help reduce or eliminate bird strikes. For example, the National Conservation Training Center (NCTC) noted a number of birds hitting their windows. As they documented window strikes, they decided any bird hit was one too many. They explored options and discovered an external film being

marketed to reduce these strikes. The film makes the glass appear opaque from the outside but remains transparent from the inside of the building. "My windows at NCTC were deadly to birds," says Jim Willis Deputy Director, NCTC. "Since installing the film, I have not heard a single thud nor seen dead birds below the window. The results are fabulous!"

The application of this film has been used at nature centers, zoos, offices and homes and has clearly reduced bird strikes. Bird collisions with glass can be addressed at many buildings, especially buildings that serve as educational facilities. Education facilities can help educate the public about the magnitude of unnecessary bird deaths due to collisions with windows, by demonstrating cost-effective ways to reduce this threat. □

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*Alicia King, Communications Coordinator, Region 9*

## Working Collaboratively to Band Mourning Doves in Colorado

As the 2008 migratory bird hunting season came to a close, Service and state biologists and a handful of volunteers in Colorado eagerly waited to learn whether some of the leg bands placed on mourning doves the previous summer had been recovered by hunters.

Motivated by surveys that estimate fewer mourning doves in parts of their range, wildlife managers have become increasingly interested in understanding the population dynamics of this species in all three harvest management units across the country. The Colorado banding effort could contribute to this understanding. Hunter-recovered bands yield valuable information such as harvest rates, distribution, and composition of age and sex that can lend insight into causes of annual fluctuations and potential management alternatives.

To assist the Colorado Division of Wildlife in achieving banding goals for 2008, biologists from the Mountain-Prairie Migratory Bird Program and the Central Flyway office partnered with staff from Colorado State Parks and Recreation to establish a new trapping site at Chatfield State Park. Located on the southern edge of the Denver metropolitan area, the park is relatively close to our offices, allowing us to make daily visits.

To efficiently distribute bait to the other seven trap sites around the state, Rocky Mountain Arsenal National Wildlife Refuge staff built and housed a 588-bushel capacity storage bin.

Partners built traps and acquired the favored white proso millet for bait last spring. Volunteers learned how to accurately age and sex the doves and record molt status during banding.

Next, we looked for a good trap site within Chatfield State Park's approximate 4,000 acres. Though mourning doves are known to be the most abundant and widespread gamebird species, a little practice and a lot of patience is required to find a "honey pot." Prior knowledge about dove breeding areas and feeding behavior can go along way.

Most Colorado trapping sites are in rural areas where crop leftovers attract mourning doves; because the park is so close to an urban area with plentiful food sources from backyard bird feeders, we were concerned that these birds would overwinter in the area. Nonmigrating doves would limit the number of bands recovered from hunters.

Still, we thought at the very least we could learn something from the experiment. After weeks of disappointing visits to baited areas with empty traps and moving to other areas in the park to escape avian predators and non-target species, we finally found success in two areas where bare ground, scattered trees and power lines were dominant landscape features.

After retrieving the mourning doves, we examined and banded each bird, recorded information about its age and sex based on wing feather characteristics. We also noted feather molt to help



with aging and future efforts to estimate vital rates. We wrapped up a successful field season by banding 200 mourning doves over four weeks.

In Colorado, the sixty day hunting season for mourning doves closed on October 30. However, the last season closed in Texas' southern zone on January 13. As of this writing, the Bird Banding Lab has received recovery information from three hunters on mourning doves banded in Colorado during the 2008–2009 season. One of these was a juvenile banded at our Chatfield site on August 18 and a hunter recovered 14 days later after it made an 800-mile journey to Kingman, Arizona.

In addition to establishing partnerships with state agencies and other Service offices, we learned many important lessons through this banding experiment that will benefit our effort in 2009. Of great interest was the discovery that at least some of

the doves that breed within this urban park do migrate and could be recovered by hunters in Colorado and beyond. We appreciate and depend on our partnership with hunters, who directly contribute to the research and management of this resource by reporting their band recoveries.

Other methods by which managers are working to improve management for this species include the Harvest Information Program (HIP) and the mourning dove parts collection survey initiated in 2007. With these two important harvest surveys and implementation of an operational banding program, managers will be able to make better informed decisions on the management of this popular species so that both hunters and non-hunters will be able to enjoy them for generations to come. □

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*Adrianna Araya, Migratory Bird Biologist, Region 6*

## Catch and Release...After Cleaning

This mission seems pretty simple. Catch birds that have gotten their feathers coated in an oil spill. I mean, really. This can't be that difficult, being covered with oil and all, right? Well, it turns out to be a bit more complicated. First, you've got to find them, then you have to get them to hold still. Then you have to catch them, and then clean them up. And don't hurt them in the process.

Picture this: An oil spill has hit the Mississippi river. Hundreds, probably thousands of wading birds, ducks, coots, herons foraging for food along the bank of the mighty Mississippi are coated with oil. Within hours the oil, starting as a number six bunker oil that can float on fresh water, but can also sink and attach itself to rocks and coat the tidal lands.

Traditional capture methods prove far less than successful. Long handle catch nets can't catch the birds as they can still fly. Sickened, probably, but well-capable of flight. Then the oil starts to harden, like asphalt. The crusting, blackened birds start to slow down, giving rescuers a chance to catch, clean, rehabilitate, and release them. But even coated and crusted, they still can resist capture.

Enter Buddy Goatcher, veteran of the Exxon Valdez clean-up, and the spill from Barge 932 in New Orleans which shut the Mighty Mississippi River down for several days, who tries a novel technique. Why not use the strong downdraft created by helicopter rotor wash to pin the oiled birds to the river to immobilize them for pickup by alerted rescue boats?

"Using choppers for locating oiled birds is standard practice," said Goatcher. "But to use them as a capture tool was kind of new."

Goatcher found that by using the superior observation platform of the agile helicopters, he could identify, isolate, and triage the birds that needed help the most.

"Spotting an oiled bird requires a lot of patience, and a steady pilot, to hover on a highly consistent basis," said Goatcher. "We have captured quite a few using this technique and now want to share this capability with our fellow agencies."

Now, fast-forward to the present, when agencies like the U.S. Department of Agriculture's Wildlife Services showed interest in learning more about oil spill response and wildlife capture. They were especially interested in learning more about using helicopters as a proactive recovery tool.

Two state directors and another 19 supervisory and wildlife disease Biologists and Technicians of USDA Wildlife Services attended training in Lafayette, Louisiana to learn more about oil spill responses in the special HAZWOPER (Hazardous Waste Operations and Emergency Response) course taught by the Southeast Region, U.S. Fish and Wildlife Service, and several contributing agencies. A total of about 50 agency representatives from USDA Wildlife Services, the Corps of Engineers, and U.S. Fish and Wildlife Service emergency responders from most of Louisiana's gulf coast national wildlife refuges gathered to attend the training from April 19–24, 2009. Some took eight-hour refresher



*Students view a net launcher during HAZWOPER training in Lafayette, Louisiana.*

courses, others stayed for the full 40 hour course.

Topics included oil and chemical spill response, wildlife capture equipment and techniques, and the Incident Command System. Wildlife Services also demonstrated some pretty cool equipment, like soft traps capable of catching wading birds without damaging their fragile legs, and a capture net gun system that uses a single .308 caliber blank round to launch large nets— handy tools in an oil spill response scenario. Veteran responders from Hurricane Katrina, Hurricane Rita, Athos oil spill, Philadelphia, and the Barge 932 oil spill in New Orleans conducted the training.

"This was a fantastic opportunity to expand on our successes in oil spill response, and proved highly effective in increasing the capture rates for oiled and injured wildlife during recent oil spills," said Jason Suckow, USDA Wisconsin State Director of Wildlife Services. "Our expertise in wildlife capture can be a very useful asset in an oil spill response, and now we are getting top-of-the-line training on the

emergency responder side— a melding of two great capabilities."

Only recently has the concept of using USDA's Wildlife Services biologists technicians in oil spill response blossomed in the Southeast. But it has already proven an effective way to capture those elusive oiled birds, slick snakes, and greased alligators. Oh yeah, now that you've got the birds down, try to catch an oil-slicked alligator. Don't try this at home folks, save it for the pros.

The final exercise of a week-long HAZWOPER (Hazardous Waste Operations and Emergency Response) training for wildlife professionals offered a unique and innovative effort to rescue oiled birds, federal response officials using a helicopter and boats to train together to identify, detain, and rescue simulated oiled wildlife at Henderson Lake, near Lafayette, Louisiana.

*Tom Mackenzie, Public Affairs Specialist, Region 4*

Red-tailed hawk



Heron



Black tern



Northern bobwhite



Woodpeckers



# How Are Our Birds Faring?

*A Look  
at the  
State of the  
U.S. Birds*

By Bob Ford

**Birds are a national treasure**, a treasure we share with people across the world. Billions of migratory birds migrate across oceans and continents seasonally. The United States is blessed with a wealth of natural resources, diverse landscapes and spectacular wildlife.

Our nation is home to a tremendous diversity of native birds, with more than 800 species inhabiting terrestrial, coastal, and ocean habitats, including Hawaii. Among these species, 75 are federally listed as endangered or threatened. In addition, more than 200 are species of conservation concern because of their small distribution, the high threats they face, or declining populations.

## **Birds as Indicators of Environmental Health**

Birds are indicators of habitat ecosystem health and thereby indicators of the health of our overall environment. Because the health of bird populations is linked to the quality and health of habitats, bird populations can provide a good indication of the quality of our nation's natural resources. The quality of life for citizens of the United States is related to the health of our natural resources. Healthy habitats for birds mean healthy habitats for people.

During our history, we have lost more than half of our nation's original wetlands, 99 percent of our tallgrass prairie, and virtually all virgin forests east of the Rockies. We have degraded and depleted the very resources upon which our quality of life depends. Since the birth of our nation, 13 American bird species have gone extinct, including the Passenger Pigeon, once the world's most abundant bird.

In the past 200 years, the U.S. population has skyrocketed from about 8 million to more than 280 million. As we harvest food, extract energy sources, grow industries and build cities, we have often failed to consider the consequences to nature. In the past 40 years, however, major public, private, and government initiatives have made many strides for conservation. But, has it been enough? How are birds really faring?

In an unprecedented partnership, government wildlife agencies and conservation groups have come together as a subcommittee of the North American Bird Conservation Initiative Committee to produce the first collaborative and comprehensive analysis of the state of our nation's birds *The State of the U.S. Birds 2009*. The results are sobering: bird populations in many habitats are declining—a warning signal of the failing health of our ecosystems. Where we have been negligent too long, such as in Hawaii, we are on the verge of losing entire native plant communities and suites of unique bird species.

Cooperative conservation efforts among the government, conservation organizations, and ordinary citizens—private landowners, hunters, and bird watchers—are making a difference. There is heartening evidence

that birds can respond quickly and positively to conservation action. Many waterfowl species have undergone significant increases in the past 40 years, a testament to conservation efforts in wetlands. We have reversed severe declines of peregrine falcons and bald eagles so that their populations are now stable.

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*The results are sobering: bird populations in many habitats are declining—a warning signal of the failing health of our ecosystems.*

## **The State of Our Nation's Birds**

*The State of the U.S. Birds 2009* presents a new synthesis of major bird-monitoring databases, including data from thousands of citizen scientists and professional biologists. Information from three continent-wide monitoring programs was gathered to create bird population indicators for major U.S. habitats, reflecting the health of these habitats and the environmental services they provide.

Bird population indicators for grassland and arid habitats show the strongest declines over the past 40 years. Some birds that depend on forests are also declining. These results reflect the >>

**Birds, continued from page 15**

influence of human activities and global change on our nation's birds. Every U.S. habitat harbors birds in need of conservation. Hawaiian birds and ocean birds appear most at risk, with populations in danger of collapse if immediate conservation measures are not implemented.

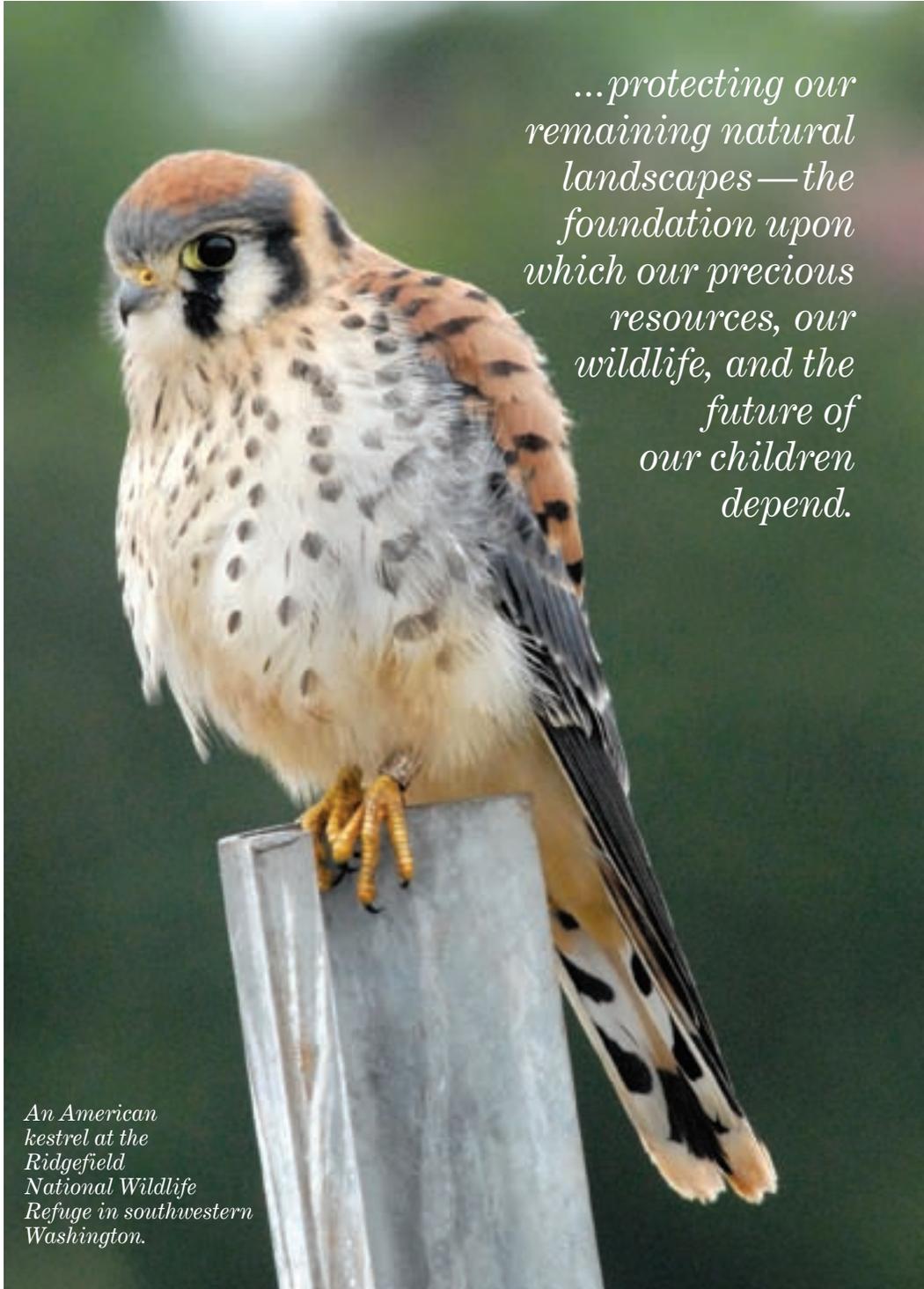
In contrast, indicators for wetland species, wintering coastal birds, and hunted waterfowl show increasing populations during the past 40 years, reflecting a strong focus on wetlands conservation and management. Birds that coexist with humans in urban and suburban areas have also increased since 1968.

*Hawaiian Birds in Crisis*

More than one-third of all U.S. listed bird species occur in Hawaii, and 71 Hawaiian bird species have gone extinct since humans colonized the islands in about 300 BC. At least 10 more species have not been seen in the last 40 years. Proven conservation measures are urgently needed to avert this national tragedy, including protecting remaining forests, eliminating exotic predators, and perhaps supplementing wild populations with captive breeding.

*Declining Seabirds Signal Stressed Oceans*

Almost 40 percent of the U.S. birds restricted to ocean habitats are declining. These birds face threats from pollution, over-fishing, and warming sea temperatures caused by climate change, as well as threats at island and coastal nesting sites. Declining seabirds may be our most visible indication of an ocean ecosystem under stress.



*...protecting our remaining natural landscapes—the foundation upon which our precious resources, our wildlife, and the future of our children depend.*

*An American kestrel at the Ridgefield National Wildlife Refuge in southwestern Washington.*

### Coastal Shorebirds of High Concern

Although some coastal birds are increasing, shorebirds that rely on coastal habitats for breeding and refueling during migration are besieged by human disturbance and dwindling food supplies. Sea level rises caused by the accelerating change in climate will impact shoreline habitats. Because of their relatively small and highly threatened global populations, shorebirds are among the groups for which there is the highest conservation concern of any continental North American birds. Half of all coastally migrating shorebirds have declined; for example, red knots have declined by an alarming 82 percent.

### Grasslands and Aridlands, Degraded and Neglected

Dramatic declines in grassland and aridland birds signal alarming degradation of these often neglected habitats. Incentives for wildlife-compatible agricultural practices in grasslands and increased protection of fragile desert, sagebrush, and chaparral ecosystems are urgently needed to reverse these declines

### Forest Birds Face an Uncertain Future

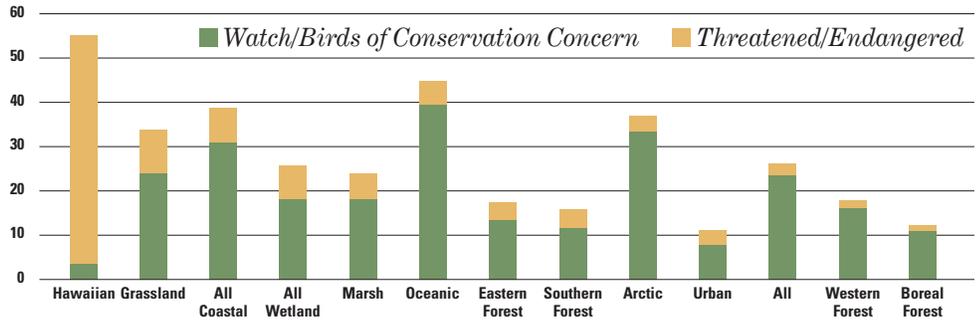
Although forest birds have fared better overall than birds in other habitats, many species have suffered steep declines and remain threatened by unplanned and sprawling urban development, unsustainable logging, increased severity of wildfires, and a barrage of exotic forest pests and disease, which will likely be exacerbated by climate change.

### Wetland Birds Show Amazing Resilience

The upward trend for wetland birds in the U.S. is a testament to the amazing resilience of bird populations if the health of their habitat is sustained or restored. The overwhelming success of waterfowl management, coordinated continentally between Canada, the United States, and Mexico, can serve as a model for conservation in other habitats.

### Birds of Conservation Concern

Percentage of bird species that are threatened, endangered, and of conservation concern in each habitat.



### Urban Birds, Buffered from Habitat Loss

Although unplanned and sprawling urbanization remains a primary threat to most habitats, a surprising number of native birds, including many woodpeckers, doves, hummingbirds, and hawks, can live in urban and suburban environments and may be partly buffered from the loss and degradation of their natural habitats.

### Conservation Strategies for Success

Our passion for nature is evident: Americans spend \$85 billion annually on wildlife watching, and one in every three American adults is a bird watcher. The will of our nation to prevent extinction and reverse environmental degradation is exemplified by the remarkable recovery of the Bald Eagle, Peregrine Falcon, and other bird species after the banning of harmful pesticides such as DDT. Although targeted conservation programs for listed species remain necessary, proactive measures involving voluntary partnerships between local, state, tribal, and federal government, nongovernmental organizations, and private citizens are needed to maintain the integrity of U.S. habitats and to keep our common birds common.

Many volunteers, citizen scientists and biologists dedicate time and energy to learning more about birds and their

connection to healthy habitats. Successful conservation requires information about the population status of every species to ensure the survival of endangered birds and to manage common species so they never become threatened.

Together we can reverse the damage to our nation's habitats and protect our remaining natural landscapes—the foundation upon which our precious resources, our wildlife, and the future of our children depend. It is imperative that we increase our efforts now, before habitat loss and degradation becomes even more widespread, intractable, and expensive to solve.

The State of the U.S. Birds 2009 calls attention to the state of the birds and to the collective efforts needed to help us accomplish the goal of ensuring healthy populations of birds for the future. If our efforts succeed, future generations will look back at this first *State of the Birds* report with disbelief that birds could ever have been so troubled.

For more information about the *State of the U.S. Birds 2009* report, visit [www.stateofthebirds.org](http://www.stateofthebirds.org). □

Bob Ford, Wildlife Biologist, Region 4

*celebrating*

20

*NAWCA Funds  
Conservation  
Partnerships Across  
the Landscape*

*By Rachel F. Levin*

*years*



*The Great Bay  
Estuary is one of  
the most important  
wetland ecosystems  
on the eastern  
seaboard.*

**In 1989, Congress passed the North American Wetlands Conservation Act (NAWCA),** declaring, among other things, that maintaining healthy populations of birds in North America depends on “the protection, restoration, and management of wetland ecosystems and associated habitats in Canada, as well as in the United States and Mexico.”

**N**early two decades later, grants made under the Act’s authority have supported thousands of cooperative projects across North America, leveraged billions in partner dollars and affected some 25 million acres of habitat making it a true conservation success story.

From the maritime provinces of Canada to the Yucatan Peninsula, the North American Wetlands Conservation Act has made an extraordinary difference in continental habitat conservation, tapping into partners who, though often diverse in mission, are genuinely committed to conserving wetlands and associated uplands for migratory birds and the hundreds of other species that depend on these habitats.

Building on established cooperation among the United States, Canada and Mexico for bird conservation—namely through the 1986 North American Waterfowl Management Plan, an international agreement that provides a strategy for long-term protection of wetlands and associated upland habitats—the Act was designed to encourage partnerships to conserve wetland ecosystems across the continent to benefit not just waterfowl but also other migratory birds, fish and wildlife.

Sponsored by Senators George Mitchell and John H. Chafee and Congressmen Silvio O. Conte, Robert D. Davis and John Dingell and signed by President George H.W. Bush on December 13, 1989, the Act created the North American Wetlands Conservation Council. The council is designed to help support wetlands protection, restoration and enhancement projects by providing grants to public-private partnerships that carry out projects in the United States, Canada and Mexico.

Three times a year, the Council recommends a slate of grants to the Migratory Bird Conservation Commission, whose seven members are authorized by the Act to give final funding approval for projects.

Grant funds for the Act’s two grant programs—the Standard and Small Grants are derived from Congressional appropriations, as well as penalties, and forfeitures collected under the Migratory Bird Treaty Act of 1918; federal fuel excise taxes on small gasoline engines, as directed by amendments to the Federal Aid in Sport Fish Restoration Act of 1950, to benefit coastal ecosystem projects; and interest accrued on the fund established under the Federal Aid in Wildlife Restoration Act of 1937.

The first projects approved for funding under the North American Wetlands Conservation Act received \$14.4 million in grants, supported by \$27.8 million in partner contributions. The projects, announced on September 18, 1990, aimed to protect, restore or enhance more than 360,000 acres in Canada, Mexico and the United States.

In announcing these first projects, then-Secretary of the Interior Manuel Lujan said, “This marks the beginning of a new approach to international wetlands conservation.”

Congress reauthorized the North American Wetlands Conservation Act in 2002, expanding its scope to include the conservation of all habitats and birds associated with wetlands ecosystems, not just waterfowl—making it truly an “all-bird” conservation program.

Partners in NAWCA-funded projects have ranged from land trusts to timber companies, working ranches to duck clubs, municipal governments to Native American tribes, and chambers of commerce to charitable foundations. Federal agencies from the Department of Agriculture to the Defense Department have also participated in Act-funded projects.

Both the Standard and Small Grants programs are competitive and both require that grant requests be matched by partner contributions at no less than a 1-to-1 ratio. Funds from U.S. federal sources may contribute towards a project, but are not eligible as match. (For details, see table below.)

### By the Numbers

NAWCA Standard Grants, 1991–2008

	U.S.	Canada	Mexico
Projects	707	479	224
Partners	3320	140	420
Grant \$	544.2 M	321.8 M	31.9 M
Match \$	1.41 B	480.4 M	47.5 M
Nonmatch \$	808.9 M	158.2 M	1.2 M
Acres	6.3 M	15.4 M	2.4 M

The Standard Grants Program supports projects in Canada, the United States and Mexico that involve long-term protection, restoration, or enhancement of wetlands and associated upland habitats. In Mexico, partners may also use grant funds to conduct projects involving technical training, environmental education and outreach, organizational infrastructure development, and sustainable-use studies.

The Small Grants Program operates only in the United States and supports the same types of projects as the U.S. Standard Grants Program. However, project activities are usually smaller in scope and involve fewer dollars. Grant requests may not exceed \$75,000, and funding priority is given to grantees or partners new to the Act’s grants program. >>



*A scene from a NAWCA-funded project in Florida.*

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*...the Service and its conservation partners in wetlands conservation have much to be proud of.*



**NAWCA, continued from page 19**

North American Wetlands Conservation Act grants have been as small as a few thousand dollars and as large as more than a million dollars. Partnerships established to accomplish NAWCA-funded projects often endure for years, winning repeated grants to continue work on long-term wetlands habitat projects. (See “Partnerships Use NAWCA to Gain Ground” on page 21).

The North American Wetlands Conservation Council has been widely viewed as a leader in international habitat conservation activities through its implementation of the Act. The Council is composed of the Director of the Fish and Wildlife Service, Executive Director of the National Fish and Wildlife Foundation, directors of state fish and game agencies representing each of the four migratory bird flyways and three representatives of nonprofit conservation organizations,

The strength of the Council comes from this diverse membership. Current Council members represent organizations such as Ducks Unlimited, the Land Trust Alliance, the Arkansas Game and Fish Commission, and the Utah Division of Wildlife Resources.

As we celebrate the North American Wetlands Conservation Act’s 20th anniversary in 2009, the Service and its conservation partners in wetlands conservation have much to be proud of. In the past two decades, more than 4,000 partners have been involved in nearly 2,000 NAWCA-funded projects. More than \$918 million in grants has leveraged some \$1.8 billion in matching funds and \$1 billion in nonmatching funds. Projects across the continent have had a positive effect on nearly 25 million acres of wetlands and associated uplands — making the Act truly one of the world’s most successful pieces of conservation legislation. □

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*Rachel F. Levin, Communications Coordinator, Region 9*

*Cape May, at the southern tip of New Jersey, is one of the most renowned birding areas in the world.*

## Partnerships Use NAWCA to Gain Ground

The North American Wetlands Conservation Act has fostered some of the finest examples anywhere of wildlife habitat partnerships.

From the Atlantic coast to the Pacific, examples abound where several different organizations and agencies initially met in order to cobble together just enough matching dollars and project acreage to compete for a NAWCA grant. Often, these efforts continue to grow and the groups continue to meet regularly to pursue additional grants and further explore mutual interests. Many have naturally evolved into formal groups of partners who work closely together and pool their expertise on a wide range of issues such as habitat mapping, natural resource inventories, outreach, fundraising and even sharing staff.

One such enduring partnership focuses on New Hampshire's Great Bay, a large, shallow estuary a few miles inland of the Atlantic Ocean. Fed by five rivers, the Great Bay is the most important wetland ecosystem in the state. Tens of thousands of individuals representing dozens of species of waterfowl, shorebird and waterbirds pass through each year, and it hosts 83 percent of the state's wintering waterfowl.

In terms of human population, that area is not only the most densely populated part of New Hampshire but one of the fastest growing regions in the entire United States. The Great Bay Resource Protection Partnership was created for the purpose of developing a NAWCA grant proposal. Now in its 13th year, it is one of the nation's outstanding landscape partnership success stories.



*Tuscawilla Ibises: Ibises and other shorebirds in Florida benefitted from a NAWCA grant project.*

The partnership has developed a comprehensive watershed conservation plan covering 24 towns. The group has received six NAWCA Standard Grants, and as nearly \$50 million from NOAA Fisheries funding. Its collective efforts have led to the protection of more than 8,000 acres of conservation land in an area with major development pressure and skyrocketing real estate values in recent years.

Similar stories surround many of the nation's premier wetland ecosystems, such as Maine's Kennebec Estuary/Merrymeeting Bay (which has received six NAWCA Standard Grants), Maryland's Chesapeake Bay, the southern tip of the Delmarva Peninsula, the Roanoke River of Virginia and North Carolina and the ACE Basin and Cooper River in South Carolina.

From the Gulf Coast to San Francisco Bay, partners have come together to tap into potential grant money, but have stayed together because they found they could accomplish more working as a group than they could individually. This is particularly true for activities related to large-scale biological planning and conservation design, such as developing Geographic Information System layers, developing and testing predictive models, field research, population surveys and monitoring.

The collective efforts of well-organized partners often affect wetlands and their surrounding landscapes long after individual parcels are protected and restored by a particular grant. □

*Mitch Hartley, Northeast Assistant Coordinator, Region 5*



## *Yaquina Head has a new attitude.*

*By Susan Morse*

# *an* **AMBITIOUS** *move in* **BIRDING**

**On the headlands of Yaquina Head**, on the rocky Oregon coast, volunteers from the Oregon Islands National Wildlife Refuge like to train a powerful telescope on a colony of Brandt's cormorants far below them. From a distance, these large black birds may look unremarkable, but zoom in on them in May and June and you can see them launch into courtship mode with a show-stopping, sky-pointing, bright blue-throated display.

**A**fter setting up the spotting scope, the volunteers wait for first-time visitors and novice bird watchers to approach them and ask for a peek. Refuge manager Roy Lowe says he can write the script for what happens next.

"Sometimes people will be a little timid about looking through the scope. And then the minute they look through and see this cormorant displaying, they immediately turn around, big eyed waving for their wife or kids to come over. It happens every time. It's just really fun to watch. They're going, 'I don't want to see this... WHOA!'"

Following recommendations of a 24-member team of government and private industry birding experts assembled in 2006 by the U.S. Fish and Wildlife Service as part of the Birding Initiative, refuges across the country are finding new ways to turn casual visitors like the surprised Oregon ecotourists into birders...and birders into refuge enthusiasts. The Service's Migratory Bird Program is a partner in the Birding Initiative with the National Wildlife Refuge System, with Assistant Director for Migratory Birds and State Programs Paul Schmidt as an ex-officio member of the Birding Team, as is Greg Siekaniec, Assistant Director, National Wildlife Refuge System.

In Texas, staffers at the Santa Ana National Wildlife Refuge are introducing visitors to a new computer tool called eBird Trail Tracker, which they can use to confirm and map bird sightings (with the help of photos and bird calls) and share their finds with other users, wherever they're located. At Ninigret National Wildlife Refuge in Rhode Island, visitors can check out backpacks containing high-quality binoculars and a birder's field guide. And at Bear River Migratory Bird Refuge in Utah, guests on guided auto tours are sharing bird sightings over two-way radios, lent to them free of charge by refuge staffers so they can share discoveries even if they're in separate cars.

Some of the efforts, like the eBird Trail Tracker station at Santa Ana, and a birding podcast available free from the Web site of the Pea Island National Wildlife Refuge in North Carolina, are newly developed under a memorandum of understanding between the Cornell

Laboratory of Ornithology and the U.S. Fish and Wildlife Service. Others, like the walkie-talkie effort at Bear River Refuge, now entering its third season, predate the Birding Initiative. But all share its central aim: to make national wildlife refuges yet more friendly to birders, and, in the process, win birders' allegiance to refuges.

### **Making the Connection**

In 2006, more than 47 million people in the U.S. fed wild birds at home or traveled to see them, making birders the biggest group of the more than 85 million wildlife watchers, according to the 2006 National Survey of Fishing Hunting and Wildlife-Associated Recreation. In pursuit of their hobby, wildlife watchers — predominantly bird watchers spent more than \$45 billion — a nice chunk of change, especially in these cash-strapped times.

It might seem logical to assume a natural affinity between bird lovers and wildlife refuges. Many refuges, after all, were first established as bird sanctuaries but many in the newer generations of birders have yet to make that connection.

"I've known since I was a kid that birding is great on wildlife refuges," says Kenn Kaufman, author of the *Field Guide to the Birds of North America* now available on loan to many refuge visitors through an agreement with publisher Houghton Mifflin Harcourt. But Kaufman says sometimes that message isn't getting through.

Former Refuge System Birding Initiative coordinator Maggie O'Connell, now chief of visitor services and outreach in the Great Lakes-Big Rivers Region, agrees that the Refuge System's outreach to birders over the past decade or so has "kind of been hit or miss...It wasn't put in a format that was easy to understand." "The Birding Team sought "to make refuges birder friendly; and make birders refuge friendly," O'Connell says. In studying the problem, drafting a dozen white papers and distilling expert suggestions into a one-page, 20-item simple checklist — available on a new page of the National Wildlife Refuge System Web site at <[www.fws.gov/refuges/birding](http://www.fws.gov/refuges/birding)>.

The birding Web page, developed by O'Connell and the Birding Team, also offers tips to the public on how to prepare for a refuge excursion and where to look for birds once you reach the refuge.

Some checklist suggestions for refuge staff are easy and low-cost, O'Connell says. One example: "Put your bird sightings [board] outside so [it's]

accessible even when the visitor center is closed." Another: Put up and maintain a clearly visible bird feeding station. Thanks to a 2008 cooperative agreement among Vortex Optics, Houghton Mifflin Harcourt Publishers and the National Fish and Wildlife Foundation, 80 national wildlife refuges now have additional binoculars and birding guides to loan to visitors, like the staff at the Ninigret Refuge.

Other checklist suggestions, like the Oregon coast telescope program aimed at novice birders, depend heavily on volunteers. "In the past," says Lowe, "we had no one there" on the headlands, showing novices what to look for. "We didn't have the staff and didn't have the time."

More ambitious projects, like the eBird Trail Tracker, in place at Santa Ana and scheduled for delivery soon to six more refuges, require a bigger investment. Cornell experts estimate first-year

"are a local resource and asset that isn't easy to publicize. So the business community...can do wonders in that regard and look good in the process."

Paul Schmidt voices pride in the Birding Team's efforts to date. "In some cases, we're limited by funding," says Schmidt, "but to the extent we can, [we want to] move those ideas to virtually every wildlife refuge."

### **Uptick in Visitors**

At the 74,000-acre Bear River Migratory Bird Refuge on the edge of the Great Salt Lake, Betsy Beneke sees signs her staff's birder-friendly efforts are winning admirers.

There's been a rise in visitors, she says, despite the fact the county access road from the visitor center to the auto tour route is closed for construction. (Volunteer guides, trained by staff, take visitors on an alternate route into the refuge.) "And 98,

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*In pursuit of their hobby, wildlife watchers — predominantly bird watchers spent more than \$45 billion — a nice chunk of change, especially in these cash-strapped times.*

expenses, including construction of the kiosk and installation of a dedicated DSL line, at about \$3,000; after that, costs drop to about \$1,500 a year.

### **New Attitude**

Project leaders, meanwhile, are enthusiastic about the potential for greater benefits which lie ahead — for birders, for refuges, and for all associated with the effort.

Says former birding team member George Petrides, founder and chairman of Wild Bird Centers — a chain of 85 stores across the country, "The idea is that by working together we will advance the cause of birding...and build support for each other....One of the best things about the Birding Team is that it brought people together who would never ever have gotten together any other way and it took the government to do it."

Petrides says the birding industry has a stake in seeing the Birding Initiative succeed, particularly now that businesses are feeling increased public pressure to show they are environmentally progressive: Wildlife refuges, he said,

99 percent of people who've taken our tours over the last couple of summers have rated our tours 'excellent.'"

Then, of course, there's a more tangible measure of appreciation: "There was a couple who visited last summer from Colorado and went on a guided tour," recalls Beneke. "When they came back, they had such a good time and they were all excited and were relating all the different birds they got to see. And they asked if they could give a donation to the refuge.

"We said that would be wonderful, and told them they could make their check out to Friends of the Bear River Refuge, because they're a nonprofit organization. And," Beneke says, in a voice registering both pride and amazement, "they wrote out a check for \$250."

For more information, visit <[www.fws.gov/refuges/birding/birderFriendly](http://www.fws.gov/refuges/birding/birderFriendly)>. □

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*Susan Morse, Writer-editor, Region 9*

Snow geese



Mallards



Gadwall



Tundra swan



Red knot



Blue-winged teal



# MONITORING WATERFOWL POPULATIONS

## *Observing trends over time*

by Jennifer Anderson

**The U.S. Fish and Wildlife Service has learned a few tricks** about waterfowl in the past half-century. Notably, to understand a duck (or goose or swan) biologists need to act like one.

And they do. Every spring wildlife biologists take to the skies, following the fluff, quacks and feathers to the northern breeding grounds in what has evolved into the largest and most reliable wildlife survey effort in the world.

The surveys are required under long-standing international agreements with Canada, Mexico, Russia and Japan for the protection of migratory waterfowl. They also have a direct impact on the United States' duck hunting industry; duck hunting seasons and limits are based on the Service's assessment of the status and size of waterfowl populations which is in turn based on the survey data.

The compilation of data over time also serves as a barometer indicating the overall health of the ecosystem, said Jim Wortham, chief, Migratory Bird Surveys Branch. "Since these species are mobile, their absence or abundance in any particular place can raise a flag," he said.

Counting ducks is much easier said than done, especially considering the size of the breeding ground: 2.1 million square miles extending from the Atlantic Ocean, through the prairie pothole region, across Alberta and Saskatchewan and into Alaska.

Covering this area are 12 pilot-biologists in the lower 48 and another three or four in Alaska, each flying with a biologist-observer. The planes travel predetermined routes at about 100 miles per hour and at altitudes of about 150 feet "low and slow," explained flyway biologist John Solberg. Collectively, these biologists travel more than 55,000 linear miles each year; the equivalent of circling the equator twice.

Their job is to count every single waterfowl they see within 1/8-mile to either side of the aircraft. They record not only the numbers and species but also the condition of the wetland habitats. They are gone for weeks and sometimes months at a time, covering 400 to 500 miles a day, often

in remote habitat and subject to sudden and unforeseen changes in weather patterns. They're in the air from sunrise to noon and spend afternoons, often in makeshift lodging, analyzing data, preparing reports and getting ready for the next day's journey.

As skilled as these pilots are, it's hard to spot every duck from the air, with hills and shrubs interfering with visibility. Where the terrain is accessible, ground crews, including state and federal biologists as well as members of the Canadian Wildlife Service (CWS), head out after the fly-overs to double check the counts. CWS's involvement, ongoing since the 1950s, is noteworthy. "It's probably the longest-running partnership the U.S. Fish and Wildlife Service has been involved in," Solberg said.

Once the pilots and ground crews collect their data, the statisticians create an overall population estimate. Mark Koneff, chief of the Population and Habitat Assessment Branch, explains that the estimates are grounded in the assumption that habitat sampled on the linear flight paths, or transects, is representative >>

**Monitoring, continued from page 23**

of habitat in a surrounding “stratum.” Koneff says, the entire survey area is divided into strata, which represent homogenous habitat regions. Birds counted by the aerial crews are adjusted by counts from the ground crews and become the basis for broader estimates of the overall waterfowl population within each stratum.

The 2008 estimate of 37.3 million birds may seem striking to the uninitiated, since it was 11 percent more than the long-term average estimate since 1955, the year the Service began systematic, aerial counting of waterfowl. But those in the know say it’s nothing to quack about. “Duck populations can fluctuate tremendously over a short period of time,” Koneff said.

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*“He [Frederick Lincoln] was enough of a visionary to know...that to do a systematic and thorough job of sampling such a large area would be impossible by boat, land vehicle or even horseback,” Solberg said.*

In all, about 20 species are counted, including tundra swans, Canada geese and various ducks, including gadwall, American wigeon, green-winged teal, blue-winged teal, northern shoveler, northern pintail, redhead, canvasback and scaup.

But the king of the flock, the clout-carrying, feather flaunting No. 1 duck of the flyway, is the mallard.

“We have the best data on mallards, and we think that the way that species responds to habitat conditions is similar to the way a suite of other species responds,” Koneff said. In other words, when mallards are thriving, other species tend to do well, too.

They also happen to be tasty—“great table fare,” he said.

Thus it is the status of the mallards that ultimately helps determine the overall framework for each fall’s hunting season. And the nation’s hunters get their first glimpse of what that season might look like in early summer when the Service produces its Adaptive Harvest Management Report, including initial recommendations for the length of the season and any restrictions on specific species.

From there the Service Regulations Committee meets with representatives from the flyway councils to submit its recommendation to the Director of the Fish and Wildlife Service, who then makes his or her recommendation to the Assistant Secretary of the Interior, for Fish and Wildlife and Parks, for a final decision.

All of this happens by early August, while hunters prepare for the season opener, usually in September. Season lengths typically vary from 30 to 107 days, depending on the flyway, waterfowl population status and breeding habitat conditions. Other restrictions can be placed on bag limits and specific species, if need be.

“It’s a pretty well-established and transparent process with respect to the data collection protocols, analysis frameworks and decisions we make from a regulatory standpoint,” Koneff said.

The evolution of that process actually pre-dates the Service. In the 1930s, aerial waterfowl counts were unheard of until a wildlife biologist named Frederick Lincoln, unsatisfied with land counts, convinced the U.S. Army to fly him and a photographer on a test flight over the Potomac River. From the information gathered during that test flight, the director of bird banding for what was then called the Bureau of Biological Survey learned not only that ducks could be identified from the air but also that air travel would be the best way to cover the entire breeding area of migrating waterfowl.

“He was enough of a visionary to know...that to do a systematic and thorough job of sampling such a large area would be impossible by boat, land vehicle or even horseback,” Solberg said.



Northern shoveler

World War II put the venture on hold. But once the war ended, the Service benefited from the availability of a surplus of military aircraft and trained pilots, and Lincoln's initiative once again was on track.

Unraveling other logistical questions fell to subsequent pioneers such as Art Hawkins, chief flyway biologist for the Service until his retirement in 1972. Among other accomplishments, Hawkins determined the best routes for the pilots, writing: "One object was to obtain a ground-air comparison between transects flown along roads and transects covering road-less country. No significant difference was found, and this finding led to the decision to follow roads whenever possible, as an aid to navigation."

By the early 1950s maps were prepared, and in 1955 the waterfowl survey was considered fully operational, at least on the prairies. Since that first year's data, pilots have flown essentially the same transects still used today.

While the spring survey, known as B-pop or, officially, the Waterfowl Breeding Population and Habitat Survey, "is the star of the show," Solberg said, the Service conducts another dozen or so waterfowl monitoring surveys throughout the year.

Among those are the Mid-winter waterfowl surveys, conducted in each of the four flyways in January in cooperation with state agencies and non-governmental organizations, and periodic flights over Mexico to monitor wintering grounds.

While ducks generally congregate in pairs or singles during breeding season, the trick in winter is counting flocks numbering in the thousands, or even tens of thousands. Photography and computer software can help, but experience trumps.

"Estimating flock size is an art form and takes a while to perfect," Wortham said. "In Maryland, I have a guy who's been doing this for 33 years." □

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*Jennifer Anderson is a freelance writer in Virginia.*

# Joint Ventures in Mexico

*Ecotourism, bird habitat protection, and community-based conservation in northwestern Mexico.*

By Jennie Duberstein

The Sonoran Joint Venture (SJV) is a partnership of organizations and individuals that share a common commitment to the conservation of the unique birds and habitats of the southwestern United States and northwestern Mexico. The region is extremely diverse, with 744 species of birds documented migrating through, breeding, or wintering in the area. Neotropical migratory birds in the western United States are dependent on sites in northwestern Mexico for wintering and migratory stopover habitat, and land use practices in one area can have far-reaching effects on bird populations. Areas like the Colorado River delta and (Álamos, Sonora, and San José del Cabo, Baja California Sur), are three examples of areas within the SJV region that are of utmost importance to Neotropical migratory birds. The birds also face increasing pressure from growing human populations. Finding solutions that benefit both birds and people is an ongoing challenge for those working in bird conservation in the region. In order to effectively address bird conservation issues in the SJV region it is necessary to find creative solutions that work across political boundaries to protect the full range of required habitat for migratory species.

Combined with an overall habitat protection and restoration effort, birding ecotourism has the potential to be an important piece of a larger solution to the issues facing bird populations in the Sonoran Joint Venture region. The SJV recently received funding through the Neotropical Migratory Bird Conservation Act to work with Pronatura Noroeste, A.C. (Pronatura provides viable economic alternatives to those struggling to make a living from imperiled environments.) to implement a project that strives to protect

Neotropical migratory birds and their habitats through a combination of on-the-ground restoration and protection efforts with developing local ecotourism projects in northwest Mexico. Although birding ecotourism is not a panacea for problems related to habitat loss or degradation in the region, it does provide an economic incentive for conservation and is an effective way for some landowners and communities to gain additional income from their land for protecting birds and bird habitat.

This project aims to support and promote existing bird habitat restoration and protection efforts in northwest Mexico by linking them with developing birding tourism efforts. The SJV and Pronatura are working closely with local communities to build the capacity of local residents and community partners in Mexico to develop birding tourism as an incentive for the conservation of Neotropical migratory birds and their habitats. The SJV ultimately hopes to connect tour operators in the U.S., Mexico, and elsewhere with project sites to encourage responsible ecotourism practices and develop conservation incentives for local residents. Tours will educate participants about the importance of the region to Neotropical migratory birds and the work of the SJV and its partners to protect these important areas.

The success of this project depends on local public participation in both project development and implementation. Pronatura has long-term habitat restoration and protection and bird monitoring projects at the three sites involved in this project. They are training local teams through Bird Guide Workshops at each project site. After the Bird Guide Workshop participants will



*Sonoran Joint Venture and Pronatura volunteers.*

work closely with local Pronatura site coordinators to continue to develop their skills and guiding abilities. As part of their participation in the workshop, participants must commit to volunteering a minimum of five hours per month to conservation-based community service projects with Pronatura. These might include environmental education in local schools, community outreach about birds and bird habitat conservation, habitat restoration work, and/or bird monitoring efforts. In addition to providing a venue for local workshop participants to continue to develop their own skills and become more involved in conservation activities in their community, this will be an important way to share information with other community members who are not directly involved in the program.

This project aims to lay the ground work for long-term economic diversification projects that will have lasting positive impacts on bird and habitat conservation. Tourism activities at each project site will promote sustainability, including recycling, using local materials for any construction, and using local resources for food. The SJV hopes that community outreach and education efforts about birds and their habitats will engender a culture of conservation as residents learn about the direct and indirect value of birds and become involved in local habitat protection and restoration efforts. □

*Jennie Duberstein, Outreach Coordinator, Region 2*

# Not So Strategic Habitat Conservation

## *A True Story About a Missed Opportunity*

Ten years ago, I was in my first week as manager of three rural Mississippi national wildlife refuges (Hillside, Morgan Brake and Matthews Brake).

The project leader and I were out kicking some dirt on one of the refuges when we began discussing plans for the coming year. He talked about many things that day, but I clearly remember hearing him say in his soft southern accent, “I like diversity. I like to manage for diversity. When I look across the landscape, I like to see diversity.”

Now, at that time my “landscape” was only what my eyes could see from the top of that levee...not what was needed on a larger, more important scale to meet the needs of wildlife that flew, lumbered, and swam beyond the reach of my eyes.

So my enthusiastic staff and I set out to create diversity on these refuges like had never been seen before. We planted trees in some places and created moist soil units in others. We allowed scrub-shrub to grow in areas while keeping open water in other spots. With each passing month, we continued to diversify our three big patches of ground.

Indeed, we attracted lots of wildlife through our “diversified” efforts, but in reality it was just more of the same species. Back then we did not realize how our efforts could contribute to a much larger landscape. We certainly helped keep common birds common, and we produced more deer, squirrel, and turkey than I’d ever thought we would.

However, we did little to meet the needs of priority forest interior nesting birds, which require larger wooded blocks; we did not take advantage of opportunities to create movement corridors for black bear; and, heck, we didn’t even increase crop and moist soil production in the most beneficial places for ducks!

And I’m now embarrassed to admit we were less than an hour’s drive from the Lower Mississippi Valley Joint Venture office, where folks working on “conservation design” — a term probably not yet invented back then — could have shown us the latest GIS tools to help us better understand how we fit into the larger landscape. Looking back I wish those folks would have come to the refuge, kicked the dirt with us

that day, and let us know how they could help. I blame myself for not seeking out those who might help me answer the most basic management questions of “why” and “where.” Instead I was too focused on “what” and “how.”

If I had thought about how to foster the right conservation in the right places, I would not have planted a single tree at Matthews Brake unless the area could be flooded each winter for ducks. I would have continued to manage the many moist soil units at Morgan Brake, but with more of an eye towards meeting the needs of migratory shorebirds. And at Hillside, I would have planted every tree I could and worked with partners to build and connect corridors for forest interior nesting birds and black bear. If only I had known what I know now.

I can honestly say this was one of the most enjoyable jobs I’ve had with the Service, and we did lots of good things. But we didn’t do the best things. Although I wish I could get those two years back, there is a Chinese proverb, which says, “The best time to plant a tree was 20 years ago...the second best time is now.” I am grateful for the challenges and experiences over the last 15 years of my career, and I am excitedly awaiting the conservation opportunities the next 25 years will bring. □

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*David Viker, Migratory Birds Chief, Region 4*



*Morgan Brake National Wildlife Refuge in Mississippi.*

### pacific



#### Avian Influenza Surveillance Yields Clues to Far-Flung Shorebird Movements

An interagency effort using modern technology to track birds and share information is resulting in exciting documentation of long-haul bird movements in the Pacific.

In 2006, the Departments of Interior and Agriculture, state wildlife agencies and Pacific territorial governments teamed up to test wild birds for highly pathogenic avian influenza (HPAI). Hawaii and the remote Pacific Islands are important to this surveillance effort because of their proximity to and trade with areas in Asia and Indonesia where HPAI has already been found.

Crews in the Pacific Islands tested live-trapped shorebirds and waterfowl. They also banded birds with aluminum bands and, when feasible, color-banded birds following banding schemes used in existing research or fitted them with radio transmitters.

These markings help identify both birds recaptured during sampling and previously sampled birds sighted in other locations. During their work on the remote islands, the crews have identified birds marked in other parts of the world that have traveled thousands of miles.

For example, field crews on Palau observed a black-tailed godwit originally banded in Chongming Domtag, China, and a greater scaup that had been banded in Japan. A ruddy turnstone captured in Guam in 2007 had been banded as a hatch year bird in 1999 near Hokkaido, Japan.

Crews traced another ruddy turnstone captured on Guam last November back to a banding location in Port MacDonnell, Australia.

Researcher Dr. Clive Milton, in March 2007, reported: "This recovery is particularly interesting as the bird's presence in Guam suggests it might possibly have been on its way back from a breeding location in Alaska. Although we have now banded two or three thousand turnstones over the years we still haven't had a recovery or a flag sighting on the breeding grounds!"

The birds banded by the Pacific islands surveillance crews also proved to be long-distance travelers. A wandering tattler (a type of wading bird) captured and banded in Yona, Guam, in 2007 was reported in July 2008 in Hokkaido, Japan, and crews heard reports of Pacific golden plovers banded in Hawaii being sighted again in Alaska.

Since 2006, more than 3,000 birds have been banded in the Pacific Islands in conjunction with the avian influenza surveillance effort. □

*Jenny Hoskins, Assistant Regional Avian Influenza Coordinator, Region 1*



KEN POPPER / TNC OREGON

*A yellow rail at Roseau River Wildlife Management Area in Minnesota.*

#### Understanding the Elusive Yellow Rail

On a calm spring evening on the Klamath Marsh National Wildlife Refuge, you can hear the chorus of snipe, marsh wrens and yellowthroats, coots, soras, Virginia rails, sandhill cranes, and if you're lucky, the incessant rhythmic 'tic-tic, tic-tic-tic' notes of male Yellow Rails.

Nearly all the world's Yellow Rails breed east of the Rocky Mountains and winter in the lowland marshes of the southeast. But here at the yellow rail's western outpost, fewer than 1,000 birds breed in the Klamath Basin and presumably winter in California.

The western population of yellow rails was considered extirpated until the Klamath Basin breeding population was discovered in the late 1980s. Today, the population is about 600 birds. Wintering birds found in California might be these Klamath breeders, but their distribution and their connection with Klamath birds have yet to be resolved.

Across its range, the yellow rail is a Focal Species for the Service and a Bird of Conservation Concern in nine Bird Conservation Regions. In Canada, where 90 percent of yellow rails breed, it is a Special Concern species due to loss of wetlands, and the unknown effects of climate change.

Although trend data are lacking, we are learning more about the species' habitat preferences and behaviors. Optimal breeding habitat seems to be about knee-high sedges or grasses, in about 4 inches or less of water. Females tend the nest, a cup of sedges woven into a tuft of vegetation and with a domed roof. Fluctuations in precipitation and in water levels on managed lands can make or break a breeding attempt. Haying and grazing may also affect breeding. Because they lay 5-10 eggs per nest, yellow rails have the capacity to quickly increase their numbers when the weather, and land managers, lend a hand.

In 2005, Ken Popper of The Nature Conservancy in Oregon began collaborating with Sue Haig, USGS, to define the genetic structure of yellow rails in general, but focusing on the Klamath Birds. Are they genetically distinguishable from Yellow Rails east of the Rockies? Are the birds in California the same as the Klamath breeders? Are the birds wintering in the southeast like those from the upper Midwest? To fill a geographic hole in the sample, they spent two weeks in 2008 banding and collecting blood from 60 yellow rails at five sites, from Seney Refuge in Michigan to Douglas Marsh in Manitoba. By adding these to other samples from Oregon, California, Quebec, and Texas, they hope to better understand the connections between birds east and west of the Rockies and north and south between breeding and wintering areas.

Meanwhile, the efforts to secure the future of the Klamath breeding birds will continue. Many birders may never see the elusive yellow rail, but in the Klamath basin, they are working to make sure they will forever be able to hear one. □

### Service Joins Klamath National Forest to Improve Habitat for Spotted Owls

In the early 1900s, timber companies along the rugged California-Oregon border built railroad lines directly into the forests, making it easier to transport logs to area lumber mills. Many forests in the area were extensively harvested, and according to one estimate, approximately 90 percent of the trees on the landscape were removed. Since the railroad logging era ended, forested stands have regenerated without any significant fire events. The result is what exists there today: dense-second growth stands dominated by smaller diameter trees.

The U.S. Fish and Wildlife Service's Yreka Fish and Wildlife Office and the U.S. Forest Service's Klamath National Forest recently began to implement a project that will improve some of these stands, considered important habitat for the northern spotted owl.

The project is known as the Mt. Ashland Late Successional Reserve (LSR). The primary objectives of the project are to promote the development of late-successional and northern spotted owl habitat in second-growth stands and reduce the threat of catastrophic wildfire.

Though far from being completed, the Mt. Ashland LSR has already proven to be a restoration success. But it is also a story of how two government agencies, from two different departments, with two different missions, got together willingly to make a good restoration project even better.

"Each agency recognized that there was a unique role for them to play," explained Karen West of the Klamath National Forest. "By working together we knew we could come up with a better plan—one offering clear benefits to the forest and wildlife, as well as the public."

West noted that there will also be less risk of catastrophic forest fires, which can cause harm to people and private property and cost taxpayers millions of dollars. West also said that the Mt. Ashland LSR may also help the Service move a step closer to the long term goal of recovering and removing the northern spotted owl from the list of threatened species.

LSRs originated in the Northwest Forest Plan, a Clinton-era proposal that calls for managing national forests from northern California to Washington State in a way that benefits both wildlife and human interests. The LSR network was designed to provide a functional, interconnected, late-successional forest ecosystem throughout the range of the northern spotted owl, with each LSR playing a specific role. LSRs are allocations within a large swath of forested landscape. In other words, they are forests within a larger forest. LSRs provide good habitat for spotted owls and other wildlife. LSRs are characterized by older, larger trees; standing dead trees; and dead trees on the ground. They also contain younger forests of differing age and characteristics.

The network of LSRs are located to provide connectivity for the owls, which makes it easier for owls to locate good habitat when dispersing—moving from one territory to another. Each LSR in the network is expected to

provide enough habitat to support large population clusters of owls. The Mt. Ashland LSR currently supports 12–14 pairs of owls, while the objective is 20.

Soon after the LSRs were designated in the Northwest Forest Plan, it became clear to officials at the Forest Service and the Fish and Wildlife Service that some of the units were either not meeting intended objectives for owl pairs, or were at significant risk from wildfire, which could be devastating.

Agency resources being limited, treating all the LSRs in the Klamath National Forest was not practical. So in 2004, personnel from the two agencies got together on their own to begin a collaborative process. They sought to determine which LSR had the greatest need and which LSRs would exhibit the best expected outcome from treatments. Based on extensive reviews of existing data on stand conditions and field verification, the two agencies agreed to move forward with a project in the Mt. Ashland LSR.

"Once we had a concept on how to improve the forest, we shared it with the public, timber companies, and environmental organizations," said Dave Johnson, a Yreka FWO biologist who has worked extensively on the project. "We held meetings and hosted field trips for stakeholders so we could explain to them what we wanted to do."

The public comments were then used to develop the final plan for managing the LSR, which called for thinning second-growth stands to variable densities, which will reduce competition >>

### Klamath, continued from page 31

for water, sun, and nutrients. This, in turn, will help to increase the growth of individual trees and ultimately improve the overall health of the forest.

Thinning will also reduce the risk of stand-replacing fire. Small, understory trees can act as “ladder fuels.” Should a fire occur in the presence of these trees, it can potentially work its way up into the canopy of the tallest trees in the stand. This results in what is known as a “crown fire.” During crown fires, flames can spread from tree-top to tree-top and, if winds are strong enough, more fires can be ignited elsewhere.

Such an episode could devastate spotted owl habitat. The goal is to restore the forest to a more natural condition so if there is a fire, the chance of it being catastrophic is lessened.

After public meetings on the Mt. Ashland LSR, an Environmental Impact Statement was prepared and the Klamath National Forest signed the Record of Decision in May 2008. Since then, contractors have been sending crews into the forest for much of the year to mark those trees that should be removed. The crew hopes to conclude the tree marking before the heavy snowfall. Otherwise, they will resume in the spring.

By next summer, the Forest Service is expected to hold the first of the timber sales on the LSR. Timber companies can bid on a stand of trees and it will be their responsibility to harvest the marked trees. Once the trees are cut and removed, another crew

will go into the forest and conduct underburns to eliminate the fuels on the forest floor.

Johnson has been in the forest monitoring the activities of the marking crew throughout the summer and fall. He is carrying out just a small part of the overall plan, yet it is perhaps the most critical step—making sure the right trees are being selected.

“The crew is doing a good job, and I am confident that their mark will meet our objectives,” said Johnson.

The primary legacy of the Mt. Ashland LSR project will be the significant improvements made in the forest. More late-successional habitat will be created over time and a healthier, more natural forest will eventually take root. This will help spotted owls and it will also lessen the risk of catastrophic wildfire.

In many instances when two government agencies work together on matters of public interest or public policy, they do so because Congress or some other authority mandates it. The Mt. Ashland LSR project can stand as an excellent example of a partnership and government-to-government cooperation. The agencies got creative. Despite limited funds and other challenges, the Klamath National Forest and the Yreka Fish and Wildlife Office voluntarily joined together, pooled resources and expertise, and implemented an efficient, far-reaching conservation program that will pay dividends to people, wildlife and the forest for many years to come. □

*Matt Baun, Yreka FWO, Region 8*

### FWS Partners with Army to Increase Burrowing Owl Habitat in Oregon

FLICKR / PHILIP BOUGHARD



*Burrowing owl*

“Owl condos” are move-in ready and coyote-proof

While the U.S. Army Umatilla Chemical Depot near Hermiston, Oregon, is best known for disposing of deadly chemical weapons, life of a different kind thrives in other areas of the Depot.

Not far from the storage area containing some of the deadliest substances known, burrowing owls have made their homes in abandoned badger dens, old pipes and other holes dug by small mammals and abandoned. Those burrows are inadvertently protected from human intrusion by the same fences, heavily armed guards and other defensive measures that ensure security of the Umatilla chemical munitions stockpile.

The burrowing owl population in the United States is declining and the Service lists the owl as a national Bird of Conservation Concern.

Since 2007, biologists from the Depot and nearby Mid-Columbia River National Wildlife Refuge Complex have worked to build new owl burrows from modern materials, hoping to boost the species’ population. Dubbed “owl condos,” they include easy

access points for banding or counting owls, plus predator-proof construction. Future plans include addition of a low-light video camera.

“We hope to provide a webcam so school kids can watch the owls,” said refuge biologist Dr. Mike Gregg, who helped design and build the burrows. “This spring we’ll study how the owls reproduce.”

Gregg said Don Gillis, the Depot’s natural resources manager, came to the Fish and Wildlife Service with the burrow idea and the Army has paid for everything.

Gregg and James Rebholz of the Mid-Columbia River refuge complex eagerly joined the effort. They selected specific sites for artificial burrows, did a lot of the digging, and worked closely with Gillis managing the project.

The burrows are built from plastic barrels and buckets, construction adhesive and 8 to 10 feet of flexible drainage pipe for the entrance. The pipe is too small for a coyote to enter and longer than a coyote would want to dig to get to its prey. After construction, the entire owl condo is re-covered with earth to make it look natural and protect it from heat.

Six clusters of three condos each—a total of 18 burrows—are scattered across the depot, with more planned. They’re placed within 100 feet of pre-existing active burrows so curious owls might explore them and perhaps move in.

“The owls seemed to like it right away,” Gillis said. “Within 24 hours one owl moved in—we nicknamed her “Buffy”—and within a few weeks we saw activity in 14 of the 18 condos.” □

southwest 

**Birds of a Mountain Island in Baja California Sur**

We hoped we didn't scare people off when we asked for volunteers to investigate breeding birds in the remote Sierra de La Laguna Biosphere Reserve in Mexico. The announcement explained the expectations: an 11 mile hike over a 4,500 foot rise in elevation in July in Baja, California just to get to the habitat we wanted to sample; a week of primitive camping, and the volunteers pay their own way to La Paz and share expenses of food, caballeros and mules to haul the gear. Three people volunteered. That made a team of seven with two Service biologists, and two Mexican biologists.

Carol Beardmore, Science Coordinator for the Sonoran Joint Venture (SJV), Dave Krueper, Assistant Nongame Bird Coordinator-R2, Eduardo Palacios, Victor Anguiano, Biosphere Reserve biologist, Richard Erickson, expert on the birds of the Baja Peninsula, Nathan Pieplow, sound recordist, and Gary Nunn, avian researcher, were the team. All intensely interested in birds, and particularly in the birds of this remote mountain range at the southern tip of Baja.

Why are we so interested in birds at the end of this piece of land in a place few people go? The Cape region of the peninsula of Baja California has long been noted as a center of differentiation of birds. It is 300 miles over low desert terrain from the mountains in the Biosphere Reserve to the next nearest pine-oak habitat northwest along the peninsula in



*San Lucas American robin*

the Sierra Pedro de Martir. Because of this distance, birds as well as other taxa have started to develop specific behavior/environmental characteristics. There are about 25 subspecies of birds that occur nowhere else but in the pine-oak habitat of the Sierra de La Laguna.

Some of our target subspecies included: "Cape" Northern Pygmy-Owl, "San Lucas" American Robin, Sierra Laguna Band-tailed Pigeon, and "Baird's" Yellow-eyed Junco; all of which look slightly different than their more northerly counterparts. We documented breeding in 14 of our target species or subspecies. We wanted to also document habitat use, determine densities, calculate population sizes and trends, take song recordings and photographs, and gather vegetation measurements. Probably our most important ornithological find was to document the first record of a Whip-poor-will nest in all of the Baja Peninsula and the state of California. And important for bird conservation, we want to make joint recommendations for conservation in the Reserve.

This expedition was a result of a relationship with the Reserve that goes back to 2006 when the Sonoran Joint Venture held a Technical Committee meeting in Baja California Sur that included a short monitoring trip into the Sierra de La Laguna. We continued discussions with the Reserve to formulate this 2008 expedition which would help us understand some of their bird and habitat conservation needs.

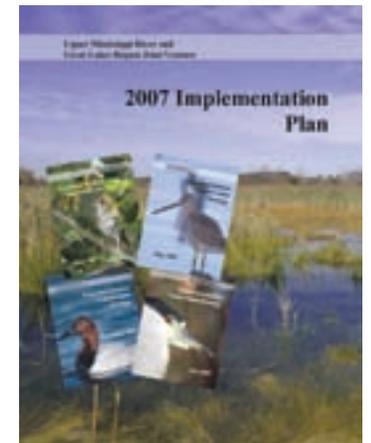
The Sonoran Joint Venture is a binational Joint Venture of the Fish and Wildlife Service working in southern Arizona and California and northwestern Mexico. We have a great binational team of biologists that have produced the SJV Bird Conservation Plan, supported a bird monitoring program, provided training, restored bird habitat, and importantly written most of our documents in English and Spanish. □

*Carol J. Beardmore,  
Sonoran Joint Venture Science  
Coordinator, Region 2*

midwest 

**Upper Mississippi River and Great Lakes Region Joint Venture Completes Implementation Plan**

The Upper Mississippi River and Great Lakes Region Joint Venture recently completed an all-bird implementation plan that identifies regional habitat conservation strategies for waterfowl, shorebirds, landbirds and waterbirds.



Over a three year period, joint venture partners and bird conservation scientists melded the habitat objectives from strategies for each of these four types of birds, generating decision support maps to target bird conservation activities. Population and habitat trends, coupled with knowledge of how species should respond to landscape change, helped partners to build a biological foundation and set quantifiable conservation objectives.

Joint venture staff has been meeting with current and potential conservation partners to market these decision support products to ensure key land managers use the information. Information sharing has >>

### Mississippi, continued from page 31

resulted in follow-up requests for assistance with science products and funding proposals for bird habitat delivery.

Increasingly, the joint venture's implementation plan is helping agency professionals who are implementing State Wildlife Action Plans.

State Wildlife Action Plans are rich in ecological information about threats to species of concern in their state, but the UMR plan and associated bird-type strategies provide conservation design for various bird groups and help each state better identify its role in regional migratory bird management.

While bird species of greatest conservation concern at the continental scale were a primary focus in the plan, the regional significance of each state for breeding, migration, and/or wintering is identified for each species.

Though the Upper Mississippi River and Great Lakes Region Joint Venture's implementation plan identifies uncertainties and research and monitoring needs for birds across the upper Midwest, the planning process uses an adaptive approach — plan, implement, evaluate, revise plan — and future versions will be developed as new information becomes available.

For more information about the plan, visit <[www.UpperMissGreatLakesJV.org](http://www.UpperMissGreatLakesJV.org)>

*Greg Soulliere, Science Coordinator, Region 3 and Barbara Pardo, Coordinator, Region 3*

### American Woodcock Initiatives Take Flight

With its unique springtime courtship flights and its desirability to autumn hunters in the northern woods, the American woodcock holds a special place in the hearts of birdwatchers and hunters alike.

Woodcock are also known by such colorful names as timberdoodle and bogsucker, which vividly describe the species' affinity for moist, forested habitat where they can probe for worms. Typical woodcock habitat consists of shrubby areas or young forests with interspersed openings; the woody cover provides protected areas for feeding during the day, while the openings provide nocturnal roosting sites and singing grounds during courtship.

Since 1968, the U.S. Fish and Wildlife Service and its state and provincial partners have conducted the annual American Woodcock Singing Ground Survey throughout the species' core breeding range in the United States and Canada. Data from this survey show that the woodcock has been declining at an alarming rate throughout its breeding range over the past 40 years. Biologists believe habitat loss is the primary cause of this decline.

In response, a broad partnership of federal, state and private partners, under the leadership of the Association of Fish and Wildlife Agencies, developed the American Woodcock Conservation Plan. Objectives of the plan are to first stabilize current populations, then increase populations to 1970s densities.



To date, the plan has spawned three initiatives that have formed under the direction of the Wildlife Management Institute to begin implementing the plan's habitat goals. Each initiative is regionally based, and all use the Bird Conservation Region framework developed by the North American Bird Conservation Initiative. The three plans cover broad swaths of woodcock habitat, from the forests of northern New England to the northern portion of the Appalachian Mountains to the prairies and hardwoods of Michigan, Minnesota and Wisconsin.

Strategies guiding each initiative include developing regional best management practices for establishing young forest habitats; implementing and evaluating these practices on public and private land demonstration areas; creating case histories for each demonstration area that showcase habitat management, site-specific best management practices and population response; and developing effective outreach to engage private landowners and other potential partners. The initiatives have received widespread support and recognition. For example, the Northern Forest

Initiative, which has more than 32 partners, received a cooperative conservation award from the Department of Interior in 2007.

Biologists recognize that returning woodcock populations to 1970s levels will be a difficult task. However, a solid foundation has been laid with these partnership based initiatives. Work is well underway toward achieving the ambitious goals of the overall plan. To date, numerous demonstration areas — including some on national wildlife refuges — have been established and outreach strategies are being developed. In addition, it is important to note that the initiatives are intended to benefit all species that depend on early successional forest habitat, not just woodcock.

Visit <[www.timberdoodle.org](http://www.timberdoodle.org)> for more information on the American Woodcock Conservation Plan and each initiative. Refuges interested in developing a demonstration area should contact Pat Ruble of the Wildlife Management Institute <[PatRubleWMI@columbus.rr.com](mailto:PatRubleWMI@columbus.rr.com)>. □

*Tom Cooper, Wildlife Biologist, Region 3*

### Long-distance Journey

Endangered roseate terns (*Sterna dougallii*), a U.S. Fish and Wildlife Service trust species, are long distance migrants. They migrate from their breeding range on the western North Atlantic coast to wintering areas in northern and eastern coastal Brazil. Every spring and summer, after roseates return to the North Atlantic, biologists from Long Island, New York to Nova Scotia, Canada visit more than 20 islands to record the number of breeding pairs at each nesting colony. With only 3,000 to 4,000 breeding pairs in the entire western North Atlantic population, tern biologists manage and protect the birds at their breeding colonies to improve their chances for a successful nesting season. During the past 20 years of annual colony censuses, the western North Atlantic roseate tern population has occasionally shown sharp declines, in some years with 20 percent fewer adult breeders recorded than in the previous year. Because the species is monitored intensely during the breeding season, biologists suspect that the declines occur during migration or during the wintering period.

Roseate Tern Recovery Team member Helen Hays is studying precisely where the birds winter in coastal Brazil and what might be contributing to losses of this species. Hays, who is also the leader of the American Museum of Natural History's Great Gull Island Project, has surveyed portions of the South American coast with Gull Island project staff and volunteers from the U.S., Canada, Argentina, Bolivia, and Brazil to determine where roseate terns concentrate during the winter. Recently Hays and her partners developed a cooperative project between the Brazilian

Non-governmental organizations (NGOs), AQUASIS in Ceara, Brazil and fishermen in a coastal village to protect the terns that land there during the months of September to December.

In December 2008, I was invited to join the team to survey coastal areas of northern Brazil, where endangered roseate terns are known or suspected to winter. The 2008 roseate team included four cooperators from the Great Gull Island Project as well as from Bahia, Brazil and two biologists from AQUASIS. The group of biologists conducted field work in three states, Bahia, Amapa' and Para'. In Bahia, the team deployed mist nets on three consecutive nights in an area called Mangue Seco, a known wintering location for North Atlantic breeding Sternidae. The mist nets captured both common terns (*S. hirundo*) and roseate terns, re-confirming the location as a concentration point for North Atlantic (breeding) terns during the non-breeding season.

In the northern most Brazilian state of Amapa', the team's objective was to explore accessible reaches of this remote coastline for tern use and good mist netting locations. However, logistical difficulties (mainly poor quality and limited roads) prevented much exploration. Much remains to be learned about tern use of this extensive and remote coastal state.

In the state of Para', the team followed-up on anecdotal reports that local fisherman had taken terns and used the bird bands to make necklaces and other types of jewelry. We interviewed many fisherman in the port town of Maruda' and on the Island of Algodoal. Most individuals we spoke with had knowledge of

encountering banded birds and told various accounts of how they, or someone they know, came to possess the bands. Only one fisherman came forward to show us a necklace containing a tern band (from a common tern banded on Great Gull Island, New York as a chick in 1995).

Whether the practice of capturing terns for their bands is on-going or mainly an activity of the past is unknown. Although we now know this practice takes place in at least two northern coastal states, Ceara' and Para', we still do not know how widespread and whether the activity is extensive enough to have population level effects on North Atlantic breeding terns. With support from the American Museum of Natural History's Great Gull Island Project and the Quebec Labrador-Foundation, AQUASIS conducted a successful educational program in Ceara'. The Museum's Great

Gull Island Project, working with AQUASIS, hopes to expand the program they developed in one village on the north coast of Brazil to other villages to encourage fishermen to protect the terns. The endangered species program at the Service's New England Field Office looks forward to exploring this possibility with our North American and new South American conservation partners.

Migratory birds are faced with changing ecological conditions and human influences along their entire migratory route. As a biologist who works in one area of the world, my visit to Brazil reinforced the understanding that endangered migratory bird recovery may not be fully successful if we are limited to working in only a portion of a species' annual range. □

Public Affairs, Region 3

*Roseate tern*



### northeast



#### Following the Path of Long-Distance Migrants

Biologists looking to halt declines in populations of cerulean and golden-winged warblers and other neotropical migrants flocked to the species' wintering grounds in South America last October to learn how to work effectively across the hemisphere to forge strategic, creative and novel conservation solutions.

Tom Will (Midwest Region) and Randy Dettmers (Northeast Region), along with 85 other participants from North, Central and South America, migrated to Bogotá, Colombia, for a summit on conservation of migratory and resident birds of the northern Andes. Hosted by ProAves Colombia and FedeCafé, the National Federation of Coffee Growers of Colombia, the gathering was an effort of the international committees of the Cerulean Warbler Technical Group and Golden-winged Warbler Working Group. Dettmers and Will are the Service focal species leads on cerulean and golden-winged warblers, respectively.

The summit comprised three segments—a conference, a festival and a training workshop.

Held at the FedeCafé headquarters in Bogotá before the familiar visage of Juan Valdez, the conference featured presentations and breakout sessions on the biology and ecology of ceruleans, golden-wings and associated species; economic and conservation opportunities provided by coffee, cacao and agroforestry; priority conservation actions; habitat



*Cerulean warbler*

conservation issues; and community outreach.

Most of the group then travelled 12 hours north to San Vicente de Chucurí—home of a cerulean warbler reserve—for the ProAves festival, which celebrates the arrival of migratory birds in Colombia. More than 400 school children marched in the Festival of Migratory Birds parade, elaborately costumed as warblers, wood nymphs and fairy protectors of the environment.

TOM WILL



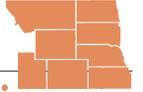
*Children participate in a festival celebrating the arrival of migratory birds in Colombia. San Vicente, Colombia, is home to the first reserve in South America established specifically for a North American migrant—the cerulean warbler.*

Finally, one group of summit participants visited local coffee and cacao plantations to see management options conducive to North American migrants, and another group conducted a workshop at the cerulean reserve in San Vicente to train Latin American biologists in techniques for studying migrants during the non-breeding season.

As extraordinary as the summit was in bringing people together across boundaries for full life-cycle conservation, it still paled in comparison to the miracle of migration of the birds themselves. Golden-wings and ceruleans, weighing no more than a third of an ounce, make journeys of over 3,000 miles each way, twice a year, in their own celebration of song and plumage. □

*Tom Will, Migratory Bird Program, Region 3*

### mountain-prairie



#### From Designation to Conservation

Along with riparian and wetland bird species, grassland nesting shorebirds such as the long-billed curlew have long been species of interest in the Mountain-Prairie Region's Migratory Bird Program. Like herds of bison and sprawling prairie dog towns, the distinctive call of a long-billed curlew reminds us of our unique prairie habitats.

The breeding range of the long-billed curlew historically spanned southern Canada to central New Mexico and Texas and from central Oregon throughout the Midwest. Today, that range has contracted to approximately one half of its former area.

Long-billed curlews winter primarily in California's Central Valley, central Texas, along the Pacific and Gulf coasts, and in northern Mexico. Habitat loss and fragmentation remain the major threat to the species. Much remains to be learned about the population structure and winter ecology of the long-billed curlew, as well as the connectivity between breeding, migrating and wintering areas and the relationship between different habitats and breeding success and survival.

The long-billed curlew is listed as a Bird of Conservation Concern across its range by the U.S. Fish and Wildlife Service and as "Highly Imperiled" by both the U.S. and Canadian Shorebird Conservation Plans. These classifications are based on evaluation of population numbers, distribution, trends and threats



BOB GRESS / GPNC

*Long-billed curlews are opportunistic feeders and use their long bills to find burrowing invertebrates.*

during both the breeding and nonbreeding (winter and migration) seasons.

In 2005, the Service added the long-billed curlew to its list of Focal Species, a designation that requires the Migratory Bird Program to work toward increasing the species' population to healthy and sustainable levels. Designated funding was provided to assist in this effort.

Early estimates of the long-billed curlew breeding population — based on localized surveys and best guesses were approximately 20,000 to 55,000 individuals.

In developing rangewide population estimates for birds, biologists often turn first to the Breeding Bird Survey (BBS), a long-term international survey that measures population trends of breeding birds across the continent. However, several challenges make the BBS the wrong tool for making inferences about long-billed curlew abundance.

To derive a statistically valid estimate of the population, the Fish and Wildlife Service and the U.S. Geological Survey developed and implemented a rangewide long-billed curlew breeding survey in 2004 and 2005. More than 100 people from federal and state agencies, universities, and the general public volunteered to participate in this effort.

Using a stratified random sampling design, evaluating detection probabilities and surveying appropriate breeding habitats across 16 western states and three Canadian provinces, biologists estimated the long-billed curlew population to be approximately 161,000 individuals — approximately three times as many as previously thought.

Based on the data collected during this rangewide survey, biologists also analyzed relationships between local- and landscape-level habitat variables and the presence or absence of long-billed curlews on those habitats. Partners helped the Service develop a status

assessment and conservation action plan. Sharing information through workshops and an online listserv, the Long-billed Curlew Working Group is now better able to focus its efforts and enact on-the-ground conservation actions.

Future actions for the working group include further evaluating survey and monitoring methods; locating and mapping migratory and wintering ranges; continuing to assess habitat needs and relationship to breeding success and survival; assessing the effects of energy development on long-billed curlew survival and breeding success; and closing critical information gaps in population demographics, size, trend, and survival of long-billed curlews. Support for projects that work towards answering these questions will remain a high priority within the Mountain-Prairie Region Migratory Bird Program.

Although the current population estimate indicates long-billed curlews are more plentiful than previously thought, their range continues to contract and biologists know that their numbers are lower than historic accounts.

Effects of global climate change and energy development may become significant forces in further decreasing available habitat both for breeding and wintering long-billed curlews. However, by prioritizing conservation actions and working with partners, we feel we can provide positive management to conserve this species. □

*Suzanne D. Fellows, Wildlife Biologist, Region 6 and Stephanie L. Jones, Nongame Migratory Bird Coordinator, Region 6*



## Anchorage Children's Outdoor Bill of Rights Signed

On December 11, 2008 in Anchorage, Alaska, eighteen managers, including the Service's Regional Director Geoff Haskett, joined the 100 plus participants of the first-ever "Get Outdoors Anchorage! Working Summit." Then Anchorage Mayor, Mark Begich, now a U.S. Senator, briefly addressed the gathering, after which each participant signed the "Anchorage Children's Outdoor Bill of Rights."

This moment had been anticipated since May, 2008, when the mayor convened a meeting of Anchorage agencies and organizations interested in getting more local kids outdoors. At that gathering he suggested that, rather than doing a Memorandum of Agreement, the group consider an "Anchorage Children's Outdoor Bill of Rights." The signing of this document marked the beginning of an ongoing effort by organizations as diverse as the Alaska Childcare Connection, Anchorage School District, National Wildlife Federation, Alaska Department of Health, National Park Service, Anchorage Parks Foundation and many others.

The U.S. Fish and Wildlife Service's Alaska Region participated in the planning of the summit and helped to fund the participation of its keynote speaker: Martha Ferrell-Erickson of the Children & Nature Network. The "Summit" had several goals including: >>



Alaska Senator, former Anchorage Mayor, Mark Begich, is joined by Alaska Regional Director, Geoff Haskett at the signing of the Anchorage Children's Outdoor Bill of Rights.

**Anchorage, continued from page 37**

- Informing participants that children are spending less time in nature than ever before; and describing the health, social, intellectual, and environmental benefits of youth spending time outdoors in natural settings;
- Visualizing an Anchorage community that provides what is necessary to connect its youth with nature;
- Identifying challenges that must be overcome to effectively connect kids with nature in Anchorage;

- Networking to learn about current successes and to identify opportunities to engage children in nature, and;
- Identifying individual and collective actions that will result in increased participation by Anchorage's youth in outdoor activities.

Later that same day, more than 20 summit participants signed up to be on the Implementation Committee that will carry this effort into the future. Anchorage is well on its way to connecting more people, especially kids, with nature.

*Public Affairs, Region 7*

**Alaskan Ingenuity**

The small Alaskan village of Toksook Bay is located on the Yukon-Kuskokwim river delta in the southwest region of the state. The area is blanketed in a spider web of rivers which carry the valuable bounty of spawning salmon each year. The local Yup'ik ("you-pick") Eskimos that live here rely upon these rivers and the surrounding ocean for their subsistence harvesting and also regard them as respected cultural symbols.

Aaron Moses is a Biological Sciences student at the University of Alaska Anchorage (UAA). In his biology, chemistry and sciences classes at the university, he is like most other American college students; he lives in the dorms, attends study groups and participates in summer internships. However, Moses is also different from most students. His first language is Yup'ik Eskimo, and he was raised in Toksook Bay. He aspires to work in Alaska after graduation, helping to conserve and protect the fisheries his people value so highly. Moses' favorite way of eating fish? "Boiled," he says with a laugh, suggesting that it is an acquired taste. In his village, traditional ways of harvesting and preparing salmon have been passed down for generations. Because of their long-term approach to land use and their historic dependence on natural resources for survival, the Yup'ik people like so many Native cultures have an inherent respect and conservation approach to nature that is often absent in mainstream approaches to the land.

Recently, the Service partnered with the Alaska Native Science & Engineering Program (ANSEP) in an effort to find and retain Native employees. This partnership will benefit the Service's efforts in multiple ways: ensuring that the stakeholders of the land, the Native people, have a vested interest in conservation while also lending their unique view of the land to the Service's mission. In 2007, Service employee Mike Rearden transferred from his position as a National Wildlife Refuge Manager in Alaska to serve as the first ANSEP Science Coordinator via a two-year Intergovernmental Personnel Act Mobility Program.

**The Story of ANSEP**

In Alaska, the acronym "ANSEP" is used so often, it rarely requires explanation. Although it was created only 14 years ago, many Alaska residents, and others who have adopted the program, are familiar with its soaring achievements and commitment to its talented students. ANSEP's goal is to effect a systemic change in the hiring patterns of Indigenous Americans in the fields of science, technology, engineering and mathematics (STEM) by increasing the number of individuals on a career path to leadership in STEM fields. The program was started in 1995 by Dr. Herb Schroeder, professor and associate Dean in the School of Engineering at UAA.

Schroeder, a self-proclaimed "white guy," discovered the need for the program when he was traveling through rural Alaska in the early 1990s while researching sanitation. He noticed the communication problems between the Native villagers and the engineers from the public health service. Having "never met a single native engineer,"



*The Alaska Native Science and Engineering Program is a visionary tool to enhance natural resource management using indigenous knowledge.*

Schroeder believed he could improve the situation by changing that fact.

Natives often struggle with limited resources in education and a lack of jobs as well as having to fight against the “systematic subjugation,” as Schroeder labels it, of indigenous students, where their potential in engineering and science is overlooked. These factors converged to create a system which barely supported high school graduation, much less the entrance of Natives into the STEM (science, technology, engineering and math) fields of study in higher education. If a student does make it to a higher education institution, they are often unprepared and unsupported, leading to dismal graduation rates.

Supported largely by private funding, ANSEP has evolved into a longitudinal group of components open to Natives and non-Natives alike. These programs work with students from the time they are freshmen in high school through graduate school. ANSEP’s model is also being replicated and used by 10 higher education institutions in seven states through the Pacific Alliance and the Indigenous Alliance for Engineering and Science Education, which include universities from Alaska,

Washington, Hawaii, North Dakota, Idaho, Colorado and South Dakota.

Schroeder was the recipient of the White House Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring in 2004, demonstrating the impact this program has had for so many Alaskan students.

**The Model**

The National Center for Education Statistics lists the university graduation rate for Native Americans in all disciplines as 36 percent. In contrast, ANSEP’s model of recruitment and retention has helped them earn an astonishing 70 plus percent graduation rate. Since the first graduate in 2002, over 100 students have successfully earned degrees through the program, mainly in engineering. Approximately 140 college students are currently enrolled in ANSEP in Alaska.

The success of ANSEP lies in what Rearden thinks is often the biggest problem for Alaska Native students; a lack of preparedness for college. He has seen many students from rural villages come into the bigger cities of Anchorage and Fairbanks and burn-out; overwhelmed with the workload, new culture and lack of support. With ANSEP, students can participate in the optional

pre-college portion of the program, available through more than 40 high schools in Alaska, Hawaii, and Washington State.

In the pre-college component, high school freshmen and sophomores are introduced to the program as they learn to assemble their own computer with the guidance of ANSEP regional directors. Students learn the basics of drafting and mapping programs used by engineers and biologists. After successfully passing chemistry, physics, and trigonometry or pre-calculus, they are eligible for the ANSEP “summer bridge” and well prepared for study at the university level.

The summer bridge program occurs the summer between high school and college. It includes a combination of class work, a paid internship, on-campus housing, and group activities intended to help the students develop supportive networks. During their time at college, students live in special dormitories, participate in group study sessions, and are co-enrolled in each class with other ANSEP students for support. They are also eligible for paid summer internships and scholarships if they participate in all of the ANSEP retention activities.

The university retention component ensures that once these students are enrolled in the university, that they not only stay there, but that they succeed and are well-prepared for a career after graduation. Weekly activities, team-building meetings, advising sessions, co-enrollment, group recitation sessions, research opportunities, and support are all part of the retention strategy. Moses says on Fridays, different employers and

federal agencies talk to students, informing them of internship and job opportunities for the future. On Sundays, he says they participate in student-led study sessions. Although students come from all over the state, they form a tight bond as they also participate in cultural activities such as making drums and Native dancing. Moses explains that this helps him feel at home while at college—and it makes him a more successful student.

**Not Just for Engineering Anymore...**

Rearden was integral to the creation of the new biology program in ANSEP. After his own son enrolled in the program, he was moved to give Schroeder a call and ask why the program was not involved in the sciences to the degree that it was in engineering. They both agreed that there was a need to increase the number of Natives managing public lands in professional positions with state and federal resource agencies. Rearden explains:

“A Native student who has grown up on the Yukon-Kuskokwim Delta, for instance, and goes on to college to obtain a degree in biology, will bring valuable skills and knowledge to a refuge biologist position in the region. He or she will likely remain in the area for a long time, whereas biologists currently working in rural Alaska typically do so for relatively limited periods. ANSEP students will arrive in the Bush with instant credibility since they’ll already know regional cultural values, language, terrain, customs, etc... these young men and women have unique qualifications that are simply unavailable elsewhere.” >>

### ANSEP, continued from page 39

After funding was secured, the new program for biology was added in 2007. The Service's shares its participation in ANSEP with the U.S. Forest Service, U.S. Bureau of Land Management, and the Alaska Department of Fish and Game and NOAA. The program is exactly the same as the original engineering program, but geared towards careers in the biological sciences. Fifteen students are enrolled this year, and that number is sure to rise as more students like Moses are drawn by the program's elite reputation.

Rearden served as Refuge Manager at Yukon Delta NWR for 13 years and was awarded the Refuge Manager of the Year award in 2003 before the transfer to his role at ANSEP. Rearden has long seen the value of using indigenous knowledge in conservation by working with the Yup'ik Eskimos of that area and tribal leaders. During his time as refuge manager, he used his cross-cultural knowledge to collaborate with the Eskimo residents and worked to include the 36 villages on the Yukon-Kuskokwim River Delta in the process of resource management. He takes that cooperative and understanding knowledge with him to his position at ANSEP. Moses says he interacts with Rearden often, and he helps him stay focused and serves as a valuable mentor.

Moses completed an internship this past summer with the Service at the Yukon-Delta NWR as a

Fisheries Bio-technician. Other science students have interned at the Alaska Department of Fish and Game, NOAA, as well as various Native agencies within the State. Rearden explains that since most students in the Science program are freshmen and sophomores, only time will tell if the ultimate goal of increasing the number of Alaskan students working in the state managing natural resources will be successfully achieved. He expresses hope for the future, and if more promising students like Moses enroll, the program will undoubtedly continue in its unprecedented growth and success.

When asked where he would like to work after graduation, Moses answers with a sincerity that can only come from someone who truly loves his land and people, "My ideal job would be working anywhere in Alaska with fish... I love where I come from and want to protect fish... I would be happy anywhere in Alaska." If ANSEP can continue to fulfill its mission, through partnerships with the Service and others, then hopefully Moses dream can be realized, ensuring responsible stewardship of the land for generations to come.

For more information, visit the ANSEP website <[ansep.uaa.alaska.edu](http://ansep.uaa.alaska.edu)>. Or contact Mike Rearden at <[michael\\_rearden@fws.gov](mailto:michael_rearden@fws.gov)>. □

*Penny Gage, Washington Internships for Native Students (WINS) Program, STEP Program Assistant, External Affairs, Washington, DC*

## pacific/southwest



### Restoring San Francisco Bay

As the 20th century drew to a close, organizations, agencies, landowners and the business community came together to develop a plan that would completely alter the face of San Francisco Bay and coastal California wetlands. The purpose was to protect and restore 200,000 acres of wetlands and riparian areas for birds and other wildlife.

Using the Baylands Ecosystems Goals Project, the scientific community analyzed what habitats were necessary to restore ecological functions, recover endangered species populations, and enhance habitat for other birds and wildlife. The information became the scientific foundation of the newly created San Francisco Bay Joint Venture (SFBJV) and its implementation strategy, Restoring the Estuary.

An unlikely partnership that includes local, state and federal agencies, business and agricultural communities, and hunters, the SFBJV was launched under the North American Waterfowl Management Plan. At the time, this was a novel concept in the Bay Area: citizen groups were cautiously watching the actions of regulatory agencies and often fighting development projects, but the partners who signed the SFBJV Management Agreement decided to work together. Their aim was to restore wetland and riparian habitats for birds, fish, and other wildlife while enhancing wetland values such as flood control and public enjoyment.

A decade later, this vision is indeed becoming reality, and birds are flocking to newly restored wetlands. To date, the partners of the SFBJV have protected 46,279 acres, restored



*As part of the San Francisco Bay restoration, after the main slough channel was excavated, fresher water rippled in, sliding over the smooth, denser brine (in background).*

10,542 acres and enhanced 6,935 acres. In fact, several of the largest restoration projects in the nation are happening in the SFBJV region.

Last October, Point Reyes National Seashore completed the 550-acre Giacomini Wetlands Restoration Project at the head of Tomales Bay, partially funded through the North American Wetlands Conservation Act (NAWCA) and the FWS Coastal Program.

These newly restored wetlands had been diked off from tidal action more than half a century ago to create a dairy farm. Now, hydrology has been reconnected and habitat created for black rail and other threatened and endangered species. The value of restoring the ranch to tidal wetlands is already apparent in the numbers and diversity of birds and other animals using the site. Wintertime high tides drew thousands of birds to the site, with 25 species and more than 3,400 water birds counted one morning last December. Species using the site include American widgeon, northern pintail, green-winged teal, northern shoveler, gadwall, cinnamon teal, bufflehead and ruddy duck.

Duck numbers have been higher this fall and winter than before restoration, probably because the open water area is greater, particularly during high tide. Shorebird surveys conducted between early November and early December noted use by greater yellowlegs, Wilson's

snipe, killdeer, least sandpiper and short-billed dowitchers. An ongoing monitoring program will help guide long-term management plans for the site.

In San Pablo Bay, the northern end of San Francisco Bay, more than 30,000 acres of diked historic baylands have been acquired for restoration, including additions to the San Pablo Bay National Wildlife Refuge. This project is a true representation of the ability of partnerships to craft a common vision and represents one of the largest opportunities for protection and restoration on the West Coast.

In the past few years, more than 11,500 of these newly protected areas have been restored to tidal action. Several years ago, a proposal for a casino spurred SFBJV partners to action. Negotiating with the local tribe, the Sonoma Land Trust acquired the 1700-acre Sears Point property, now the San Pablo Bay National Wildlife Refuge headquarters.

Other recent acquisitions have protected the Tolay Creek watershed, which drains into the refuge and provides an opportunity for restoration of riparian systems and a freshwater lake as well as tidal wetlands. Sears Point and Cullinan Ranch on the refuge will soon be restored to a mix of wetland and grassland habitats.

The vision of restoring San Pablo Bay is taking shape, through collective planning and fundraising efforts of the SFBJV and other partners.

In the South Bay, planning and fund raising are well underway to implement Phase 1 of the South Bay Salt Pond Restoration Project, a cooperative effort between the Service, California Department of Fish and Game, and the State Coastal Conservancy. More than 14,000 acres of these industrial salt ponds will be restored to a mix of habitats including tidal wetlands to help with the recovery of the California clapper rail, salt pannes for nesting western snowy plovers, and tidal flats and managed ponds for shorebirds and waterfowl.

This project represents 90 percent of the restoration opportunities in the South Bay and is the largest wetland restoration project on the West Coast. It will undoubtedly take a long time to complete, and an adaptive management plan is in place to help insure that the optimal balance of habitat types will ultimately be restored to achieve project goals.

The face of San Francisco Bay and nearby coastal wetland habitats is changing. While humans cannot reclaim the same historic landscape in this highly urbanized area, we can restore ecological functions while providing habitats for wintering bird populations and helping to recover endangered species. Stay tuned. □

*Beth Huning, Coordinator, Region 8*

## Act Helps Restore Wetlands, Bring Back the Birds in the Bay Area

Last October, Point Reyes National Seashore in California completed the 550-acre Giacomini Wetlands Restoration Project at the head of Tomales Bay, a project funded in part through the North American Wetlands Conservation Act.

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An ongoing monitoring program will help guide long-term management plans for the site. □

*Beth Huning, Joint Venture Coordinator, Region 8*

### Celebrity Sighting

Jack Noller never considered himself a celebrity-seeking paparazzo. He is now.

Noller was photographing bald eagles at the Lower Klamath National Wildlife Refuge the day before Christmas when he spotted an immature eagle with a tag and a radio. After taking several images, he e-mailed them to Charlotte Ann Kisling of Dorris, a well-known birder.

Kisling did some investigating and learned A-46 is actually Stephen Jr., who she calls the world's most famous bald eagle. "I've been waiting two and a half years to see this eagle," said Kisling, who did just that Christmas Day. "I just knew eventually it would show up here."

Stephen Jr. is named after Stephen Colbert of Comedy Central television's "The Colbert Report." He was hatched April 17, 2006, from an egg found on Santa Cruz Island, one of Southern California's Channel Islands, at the San Francisco Zoo as part of the its California Bald Eagle breeding program. It was released on the island June 8, 2006, after being equipped with a blue tag and GPS unit. Since then, Colbert has regularly reported on Stephen Jr. during his mock newscasts. "I watch the Stephen Colbert show regularly," Kisling said.

The GPS unit tracked Stephen Jr. on his seasonal travels from California through Oregon and Washington to British Columbia and back south. Based on that tracking information, which is available on the Internet, it appears Stephen Jr. might have previously visited the Klamath

Basin. The sightings and photographs have stirred interest in the bird-watching world. Noller has been contacted about using his photos at various Web sites. Kisling wonders if Colbert might do an update on his television show.

"I am sure that Stephen Sr. will be happy that his 'baby' is back in California, but just barely. It was seen flying off with prey remains when I last saw it," she said of seeing A-46 on Christmas Day. The eagle has been seen at the exit of the Lower Klamath National Wildlife Refuge along Stateline Road. "He is looking very good," said Dr. Peter Sharpe of the Institute for Wildlife Studies in Avalon, California, which has been tracking the eagle's movements, in an e-mail to Kisling after seeing some of Noller's photographs. "It was my Christmas present to see it," Kisling said of seeing Stephen Jr. on Christmas Day. "Now that I know who it is, I'm excited." □

*This story was originally published in the December 27, 2008 edition of the Klamath Falls, Oregon, Herald and News and is reprinted here by permission.*



*An eagle named Stephen Jr. named after the comedian Stephen Colbert from the Colbert Report.*

### A Room With a Grand View

"Occupied, pine, capture history 1,1,1", I recite into the small computer that I am hoping is correctly recording our information. I am doing this while looking out the window of a Cessna 206 on floats, making sure the computer doesn't slide off down the aisle while we recover from yet another steep right bank turn.

I volunteered to be an observer for the national bald eagle survey conducted this past spring. The survey is a product of the bald eagle's removal from the List of Threatened and Endangered Species in 2007. The Endangered Species Act requires that species removed from the List due to recovery must be monitored for a period of no less than five years. This 2009 survey is considered the baseline for bald eagle post-delisting monitoring. Due to the longevity of the bird, the plan calls for 20 years of monitoring at five years intervals, after which a decision will be made to continue monitoring or to cease further studies.

The 2009 survey primarily used fixed wing aircraft including Migratory Birds' newest addition to its fleet, the Kodiak Quest. Rotorcraft were used in Washington State due to the mountainous terrain and safety concerns. Nests were searched for in two ways: existing nests were checked for activity, and randomly selected blocks of land were scoured for any new nesting pairs. These data are then statistically combined to estimate the population in the lower 48 states.

It was a major task to pull together all the partners needed in 14 selected states to conduct



*Fred Roetker (left), Flyway Biologist-Pilot and Stephen Easterly of the Wisconsin DNR with the Kodiak Quest, an Cessna that helps monitor bald eagles.*

the survey. Timing was also critical since surveys are best conducted in the short time period while the bald eagles are brooding and deciduous trees are not yet leafed out. Some states such as Florida conducted their own flights and just looked for assistance from the Service's bald eagle survey team on sample plot identification and to provide observer assistance. (Each flight carries two observers to assess observational accuracy.) Surveys in other states were flown by the Service's Migratory Bird pilots using local observers where possible. Survey coordination for the Service was handled by Mark Otto and Emily Bjerre, Office of Migratory Bird Management, Laurel, Maryland. When needed, Emily also helped observe—in between making calls to set up the next surveys, send out plot maps, line up observers, etc.

Once the data are pulled together and analyzed, members of the Service's bald eagle monitoring team will look at the data in relation to goals stated in the plan. They will prepare a report, to be completed within a year from the end of the survey that will evaluate the results. By the time the report is complete and out for public review, it will be time to start organizing data and material for the next bald eagle post-delisting monitoring survey. □

*Jody G. Millar, Bald Eagle Recovery Coordinator, Moline, Illinois*

## transitions

### Headquarters



**Ken Stansell** retired after 30 years of dedicated service to the Fish and Wildlife Service.

As Deputy Director, Stansell worked diligently to promote the agency's mission and priorities throughout the United States and abroad by developing and strengthening partnerships with other Federal agencies and foreign governments, States, Tribes, non-governmental organizations, and the private sector. Stansell assisted the Director in ensuring agency performance and accountability, customer service, and consistent application of all Service resource management policies; and was responsible for the day to day operations of the Service in implementing its field based mission.

Stansell began his career in 1974 as a research biologist with the South Carolina Wildlife and Marine Resources Department, where he established one of the first State endangered species conservation programs, in response to the newly enacted Endangered Species Act. He joined the Service in 1979, working in both the Federal Aid and Endangered Species programs in the Southeast Region. In 1987 he was selected for the Departmental Manager Training Program and transferred to Washington, DC where he held a series of management positions in both the Endangered Species and Ecological Services Programs. In 1990, Stansell began working in the international arena, administering the newly created African Elephant Conservation Act. In International Affairs, Stansell was promoted to Chief of the Division of Management Authority, and then to Deputy Assistant Director. □

### Pacific



**Jerry Leinecke**, Deputy Project Leader for the Hawaiian and Pacific Islands National Wildlife

Refuge Complex, retired on April 3, 2009, bringing a 42-year career in the National Wildlife Refuge System to a close. He spent the last 25 years in Honolulu, Hawaii, during which he has helped add 12 new units to the National Wildlife Refuge System.

Leinecke started his career at Crab Orchard National Wildlife Refuge, then moved on to the Upper Mississippi River and Sherburne refuges. In 1976, he transferred to Alaska, where he stayed until coming to Hawaii in 1984. He graduated from the University of Tennessee and received his master's degree from St. Mary's College in Minnesota. He was presented a Department of the Interior Superior Service Award in 2006 in recognition of his many accomplishments.

His passion for the Refuge System and his commitment to his staff are legendary. His door was always open, and no problem was too large for him to resolve. During his time in Hawaii, he became known as the face of the Refuge System to a wide variety of federal and state partners the common line was "everybody knows Jerry, and Jerry knows everybody!" His knowledge, connections, smile, and willingness to listen will be greatly missed.

Jerry is returning to Illinois for a few months to his family home, perhaps to play with the big toys on the family farm, and definitely to spend more time with his grandchildren in Louisiana and Nevada. Fortunately for those of us in Hawaii, he is maintaining his current home here too, and we hope to see him return with the kolea (Pacific golden-plovers) when the snow starts flying in southern Illinois. □

### Southwest

After years of dedicated service in Albuquerque, **Elizabeth Slown** has moved on to green—but colder—pastures. Serving as a Public Affairs Specialist for the Southwest Region since 2000, Elizabeth has accepted a job as the Director of Public and Governmental Relations for the U.S. Forest Service, Northern Region. She started 2009 off with a move from the Southwest Regional Office in Albuquerque, New Mexico to her new office in Missoula, Montana. It was with bittersweet congratulations that the Service staff throughout the country said 'bon voyage'! □

After a 32 year career, **April Fletcher** has retired. As crowning achievement to her illustrious career, Fletcher will receive the Outstanding Weed Manager Award from the Western Society of Weed Science, in recognition of extensive contributions to the weed science discipline. April began working for the Service in 1976, in Washington, DC, for the Office of Migratory Bird Management. In 1979 she transferred to the Southwest Region's National Wildlife Refuge Program, and has reviewed pesticide use proposals since 1986. Fletcher has been Invasive Species Coordinator since 1999, providing valuable oversight, support, and technical guidance on invasive plant species management and pesticide use to 46 National Wildlife Refuges in the Southwest Region. Over her career, Fletcher also served as Integrated Pest Management Coordinator and Contaminants Cleanup Coordinator, wrote the Service's first National Pollution Response Plan for Oil and Hazardous Substances and prepared a reference and resource manual to consolidate and supplement technical information on invasive species and pesticides. Prior to employment by the Fish and Wildlife Service, she worked for the Insect Pathology Department, and Division of Biological Control at the University of California, Berkeley. □

## honors

### Headquarters



The National Wildlife Refuge Association has named **Greg Siekaniec**, currently Refuge System Chief and

formerly refuge manager at Alaska Maritime National Wildlife Refuge, the Paul Kroegel Refuge Manager of the Year. □

**Brian Bohnsack** received the States Organization for Boating Access (SOBA) Award for Outstanding Service during their October 2008



Annual Meeting. The award recognized Brian's support for recreational boating through his management

of the Clean Vessel Act and Boating Infrastructure Grant programs for the U.S. Fish and Wildlife Service. As a Service employee, Brian's current position at the Association of Fish and Wildlife Agencies (AFWA) allows him to continue to support SOBA objectives building on his past experience with the Sport Fishing and Boating Advisory Council (SFBPC) and the Wildlife and Sport Fish Restoration Program. First awarded in 1990, the SOBA award is presented to an individual or an agency who has made either a one-time or continuing contribution to provide improved access for boaters and anglers to our nation's public waters. These contributions can relate to such activities as: obtaining funding at the national or a state level for boating >>

# our people

## Bhonsack, continued from page 43

access acquisition or improvement; enactment of legislation or policies that protects and improves the public's right to access the nation's waters; and similar activities. □

**Low Gorman** in Endangered Species recently got an award from the National Military Fish and Wildlife Association. The National Military Fish and Wildlife Association (NMFWA) was officially chartered in 1983 is a non-profit organization consisting of professional resource managers working to protect and manage wildlife and other natural resources on DoD lands. □

## Southwest

### Trinity River National Wildlife Refuge Receives 2008 QVM™ Project Habitat™ Award for Responsible Vegetation

**Management** and was announced at the third annual awards banquet held recently in Austin, Texas. The QVM Project Habitat Awards is an annual awards program designed to honor quality vegetation



management programs across the U.S. It rewards vegetation management professionals that uphold high standards of vegetation management and follow the QVM Principles and Practices. "Trinity River stands out as a leader

in responsible environmental stewardship because of their commitment to the highest industry principles and practices," said Kim Dorman, Communications Specialist for BASF Professional Vegetation Management. "The commitment they have made helps sustain healthy vegetation and wildlife ecosystems." □



### The FWS-Ecological Services Southwest Borderland Team

was recognized by the Deputy Assistant Director for Endangered Species for their contributions to conservation at the second Annual FWS Southwest Borderland Summit meeting in Albuquerque, March 18–19, 2009. This team is the primary Service task force for coordination with Customs and Border Protection on the Congressionally-mandated fence project along the International Border with Mexico. Service staff pictured above were recognized for their tireless efforts in assisting Customs and Border Protection in project development and future planning. Through close coordination among Field Offices, Refuges, Regional Offices, and the Washington Office, the team's efforts were grounded in sound science, consistent policy, and collaborative communication. Their efforts have made the FWS a leader among all interagency stakeholders on the Southwestern Border. □

## in memoriam

### Southeast



**Charles K. Baxter**, a 35-year Service employee who spent his career advancing natural resources

conservation in the southeastern United States, died February 7 in Vicksburg, Mississippi. He was 61.

During his tenure with the Service, Baxter influenced migratory bird conservation planning and management in North America through his leadership of the Lower Mississippi Valley Joint Venture and fostered the emerging West Gulf Coast Joint Venture. He also did pioneering work in conservation-related carbon sequestration planning and most recently played a leading role on the Service's National Ecological Assessment Team in advancing the Service's Strategic Habitat Conservation initiative.

He began his career with the Service in 1971 as a fish and wildlife biologist with Ecological Services in Fort Worth, Texas. He also worked as an assistant area manager in Asheville, North Carolina. Baxter moved to Vicksburg in 1979.

He served as the field supervisor in the Vicksburg ES field office until 1988, when he became the first coordinator of the newly established Lower Mississippi Valley Joint Venture, one of the oldest and most active habitat joint ventures in North America.

In 2006, Baxter was named team leader for the National Ecological Assessment Team and a senior adviser to Service leadership on the Strategic Habitat Conservation initiative. Baxter retired from the Service in 2007.

During the early part of his career, particularly while he was field supervisor in Vicksburg, Baxter engaged in a variety of challenging conservation issues, many associated with the Lower Mississippi River and its tributaries. He worked to strengthen collaboration among the Service, the Corps of Engineers, state resource agencies, conservation groups and private landowners, and to improve the quality and application of the science-based data and information the field office used in its work.

Baxter's dedication, technical expertise, leadership and communication skills affected the outcome of numerous contentious and controversial navigation, drainage and flood control projects on rivers in Arkansas, Mississippi and Louisiana that otherwise would have significantly degraded or destroyed wetlands and their functions and values in the Lower Mississippi River Valley ecosystem.

In 1988, Baxter became coordinator for the Lower Mississippi Valley Joint Venture. As joint venture coordinator, he developed a vision and fostered development of what has become a model for conservation joint venture management, planning, implementation and evaluation.

Baxter served on the committee that developed the 1998 update of the North American Waterfowl Management Plan, influencing the plan's vision for waterfowl management guided by biologically based planning refined through ongoing evaluation, a strong definition of the landscape conditions needed to sustain waterfowl, and collaboration with other conservation efforts, particularly other migratory bird initiatives and the broader community to find sustainable uses of landscapes.

As participant of the National Ecological Assessment Team, Baxter articulated and promoted

the tenets of strategic habitat conservation as a conservation business model for the Service and other conservation organizations, delivering countless presentations to Service staff, and leadership, the U.S. Geological Survey Executive Leadership Team, and leaders in the Department of Interior and Office of Management and Budget.

Baxter received numerous awards during his career, including the Regional Director's Honor Award in 1992, 1999 and 2006 and the Regional Director's Stewardship Award in 2007, as well as the U.S. Department of the Interior's Meritorious Service Award in 2002 and the Distinguished Service Award in 2007. During his career, Baxter was also recognized by numerous national and international conservation organizations, including Ducks Unlimited, the Wildlife Management Institute, the North American Waterfowl Management Plan Committee and the Association of Fish and Wildlife Agencies.

In his three-plus decades with the Service, Baxter made many close friends and had many admirers, some of whom have paid tribute to him in the weeks since his death.

"I know that without Charles, the Southeast Region of the U.S. Fish and Wildlife Service would not be where it is today in using the most strategic and cutting edge approaches to our conservation mission," said Vicki McCoy of Region 4. "He had a lasting impact on the Lower Mississippi Valley and on the launching of SHC. The depth of his intelligence—which earned him the nickname "the professor"—and his burning desire to conserve the wild beauty that is America motivated him to keep reaching higher. And he pulled the rest of us up along with him."

"Medically speaking, we understand that we are here today because, as we've been told, Charles's heart failed him," McCoy continued. "But I want to say that Charles Baxter's

heart never failed him on the things that matter for eternity. His heart was big, and wild, and strong to the very end in regard to all that he held dear, all that truly mattered. In this world, we need more hearts like Charles Baxter's."

Charlie Scott, project leader at the Columbia, Missouri, ES field office, described his reaction to the news of Baxter's death: "I was always in awe of Charlie's wisdom and tireless energy, delivered in that slow, east Texas drawl," Scott wrote in an e-mail. "However, there was nothing slow or mediocre about Charlie Baxter. In Charlie's untimely death ES, the FWS, and this nation lost a truly remarkable conservationist and human being. The stately oaks in the Delta hardwoods are weeping for their dear friend today!"

Baxter is survived by his wife, Carolyn P. Baxter of Vicksburg, and a son, Charles Randall Baxter of Albuquerque, New Mexico.

People can read about Baxter's life and work and share their reminiscences at <[www.charlesbaxter2009.com](http://www.charlesbaxter2009.com)>. □

## Alaska



**Richard Davis**, worked for the U.S. Fish and Wildlife Service for two decades on the of the Nunivak Island

National Wildlife Refuge, beginning in 1966. Prior to joining the Service, Richard had worked for the Bureau of Indian Affairs, National Weather Service, and U.S. Postal Service and as a reindeer herder for Nunivak Island. In the late 1960s, Refuge Manager Cal Lensink began winter ground surveys of muskox to obtain additional population data and Davis was hired to participate in these annual efforts. Having been born and raised on Nunivak Island, Davis had an intimate knowledge of the

local environment and owned one of the few local "snowplanes" (a precursor to the snowmachine).

Though Richard's job with the muskox surveys was as a temporary, local hire position, he became a seasonal aide in 1970 and a permanent/part time maintenance man in Mekoryuk in 1975. He assisted in the construction of a storage building and corral in Mekoryuk and two remote cabins on the refuge, which supported field studies and muskox transplants.

Davis continued to assist in successful musk ox capture operations, ten of which were performed between 1964 and 1979. As a result of these operations, some 200 muskoxen were relocated to five Alaskan and two Russian sites. These efforts returned muskox to several sites within their historic range from which they had been extirpated in the 1800s. Other captured muskoxen were provided for research at the University of Alaska-Fairbanks and Richard's participation in all these efforts helped insure their success.

Davis's knowledge and insights relating to the people, history, geography, vegetation, and fish and wildlife resources of Nunivak Island were invaluable to the Service and others for more than three decades. Richard doubled as cultural liaison between fellow residents and Service managers and biologists, helping everyone understand each others views.

Davis was an inspiration and even in the most trying of situations was never known to grumble or speak an unkind word. He leaves behind his wife Irene and their three children Kenneth, Samuel and Selma. Six grandchildren brightened his later years. His kind and generous personality and will be missed not only by his family but also by his many Service friends. □

The Service lost a longtime advocate and friend March 2, 2009, when **Jack Lorenz** passed away at age 69.

Lorenz served as executive director of the Izaak Walton League of America (IWLA) from 1974 to 1992, championing numerous conservation causes including the creation and expansion of many National Wildlife Refuges such as Canaan Valley NWR and Upper Mississippi River NWR, as well as supporting work toward legislation that ultimately became the 1997 National Wildlife Refuge System Improvement Act. He also helped a diversity of interests find common ground in development of the 1980 Alaska National Interest Lands Conservation Act. In addition, Lorenz led the IWLA's effort to purchase a helicopter to help Service law enforcement officers apprehend waterfowl poachers in the Gulf of Mexico in the late 1980s.

At the IWLA, Lorenz established the Outdoor Ethics program, initiated the award-winning Save Our Streams program, helped found the Jackson Hole Land Trust, and worked to protect millions of acres of habitat critical to wildlife. He was co-founder of the Wildlife Habitat Council and the environmental community's Green Group, chairman of the Washington Conservation Roundtable, and served as president of the American League of Anglers and Boaters.

Lorenz was well-known and appreciated by hunters, anglers and environmentalists alike and was fond of describing the IWLA as "the streak of blaze orange in the green movement."

In his retirement, Lorenz served on the board of Earth Force, a group dedicated to helping young people become involved in environmental projects and was a board member of the Friends of the North Fork of the Shenandoah River. □



OPERATION MIGRATION / JOE DUFF

*Whooping cranes bound for the gulf coast of Florida.*

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