



The All-Bird Bulletin

Bird Conservation News and Information

Spring 2010

A publication of the North American Bird Conservation Initiative

Inside this issue:

<i>Saving Our Shared Birds: A History and the Value of Process</i>	3
<i>Full Life Cycle Conservation</i>	4
<i>El Triunfo Shade Coffee and Birds</i>	6
<i>The Western Hummingbird Partnership</i>	7
<i>Saving Our Shared Grassland Birds</i>	9
<i>Boreal Avian Monitoring Project</i>	10
<i>Bridging the Divide</i>	12
<i>Sharing Tools, Saving Birds</i>	13
<i>Sharing a Passion for Bird Conservation Across the Americas</i>	15
<i>The Mysterious Decline of the Rusty Blackbird</i>	17
<i>Saving Our Shared Songbirds on the Osa, Costa Rica</i>	18
<i>IMBD 2010: The Power of Partnerships</i>	20

Taking Action to Save Our Shared Birds

Ashley Dayer, Cornell Laboratory of Ornithology and Bird Education Alliance for Conservation

On May 11th, 2010, government officials from Canada, Mexico, and the United States, on behalf of the landbird initiative, [Partners in Flight](#) (PIF), released the report, *Saving Our Shared Birds: Partners in Flight Tri-National Vision for Landbird Conservation*. The release took place at the XV Annual Trilateral Committee for Wildlife and Ecosystem Conservation and Management meeting in Halifax, Nova Scotia, Canada—a venue most appropriate for the first comprehensive conservation assessment of landbirds at the tri-national level. The Trilateral Committee facilitates cooperation and coordination among the wildlife agencies of the three nations in conserving and managing wildlife, plants, biological diversity, and ecosystems of mutual interest.

Saving Our Shared (SOS) Birds is the latest effort by PIF to help species at risk and keep common birds common—its mission since 1990 (see Rich, *History*). Driving the report's creation was the idea of a shared continent of birds *and* a shared continent of people connected to birds, transcending the borders of our three countries for conservation.



The tri-national assessment employs PIF's process for scientifically evaluating the conservation vulnerability of birds based on factors such as population size, distribution, population trend, and threats. The results highlight species of shared concern and shared responsibility and both point to the need for immediate action. Articles in this special issue of *The All-Bird Bulletin* highlight on-the-ground conservation projects that address these shared concerns and shared responsibilities.

Shared Concerns:

- 148 bird species are in need of immediate conservation attention because of their highly threatened and declining populations.
- The most imperiled birds include 44 species with very limited distributions, mostly in Mexico, including Thick-billed Parrot and Horned Guan.
- Also of high tri-national concern are 80 tropical residents with ranges in Mexico, such as Red-breasted Chat and Resplendent Quetzal.
- Additionally, 24 species that breed in the United States and Canada continue to warrant immediate action to prevent further declines, including Cerulean Warbler, Black Swift, and Canada Warbler.
- Forty-two common bird species have steeply declined by 50% or more in the past 40 years, including Common Nighthawk, Eastern Meadowlark, and Loggerhead Shrike.

Continued next page



Advancing integrated bird conservation in North America

Shared Birds, Shared Responsibility. Clear linkages among birds and habitats in our three countries compel us to work internationally, to reinforce partnerships, and to develop new mechanisms for conserving both migrants and residents. More than 200 species, comprising 83% of individual landbirds, rely on habitats in all three countries. During the winter, tropical forests in Mexico provide critical nonbreeding habitat for close to 100 substantially shared migratory species. These same forests provide year-round habitats for 70% of species that are of high tri-national concern (Figure 1). In the spring and fall, migrating birds depend on high-quality habitat for resting and refueling between distant breeding and wintering homes. The necessary approach is one of full life-cycle stewardship, working toward bird conservation across seasons and geography (see Will, *Full Life Cycle*).

A Call for Action. Action is needed in each country, but the most urgent needs are in Mexico, where tropical forests important to many high-concern landbirds are threatened by continued clearing for agriculture, livestock production, timber, and urban development. Many migrants from Canada and the United States depend on the same tropical highland forests in southern Mexico needed by highly threatened resident species (see map).

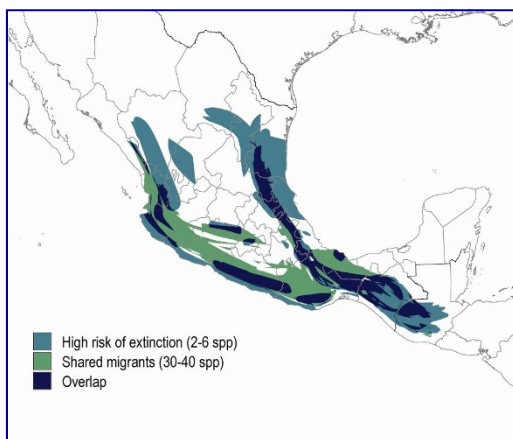


Fig 1. The winter ranges of shared migrants show a striking geographic overlap with the ranges of species at greatest risk of extinction. More than 100 of the migrants shared substantially among our three countries rely on the same tropical and pine-oak forests that support highly threatened tropical residents. Map reprinted courtesy of *Saving Our Shared Birds*, Berlanga et al. 2010.

Saving Our Shared Birds recommends six essential conservation actions:

1. Protect and recover species at greatest risk.
2. Conserve habitats and ecosystem functions.
3. Reduce bird mortality.
4. Expand our knowledge base for conservation.
5. Engage people in conservation action.
6. Increase the power of international partnerships.

Projects and program described in articles in this issue of *The All-Bird Bulletin* demonstrate these actions and are helping conserve species highlighted in *Saving Our Shared Birds*. For example, read about shade-grown coffee (see Macias and Vidal, *El Triunfo*), tri-national hummingbird conservation (Wethington, *Western Hummingbird Partnership*), grassland bird conservation (see Panjabi, *Grassland Birds*), international joint ventures (see Duberstein, *Bridging the Divide*), getting optics to Latin American (see Petersen, *Birders' Exchange* and Ellis, *Optics for the Tropics*), avian modeling (Song et al. *Boreal Avian Modeling Project*), and Rusty

Blackbird conservation (see Greenberg, *The Mysterious Decline of the Rusty Blackbird*). We must continue to support this impressive work, and promote other similar projects and programs across the continent.

Saving Our Shared Birds concludes that we can achieve our goals to conserve North America's bird populations and the habitat they depend on, but the window of opportunity is rapidly closing. Conserving our shared birds will require a continental, and ultimately hemispheric, perspective and a commitment to international cooperation. Although this tri-national assessment is a major step forward for bird conservation in the Western Hemisphere, efforts in Mesoamerica (see Thompson, *Saving Our Songbirds on the Osa, Costa Rica*), Caribbean, and South America must also address the highest priority conservation needs for the hemisphere's shared birds.

Contributors. *Saving Our Shared Birds* is the result of years of effort by many talented and dedicated individuals and organizations. Authors of the report represent government agencies, academic institutions, and NGOs in Canada, Mexico, and the U.S.: Environment Canada and Bird Studies Canada (Canada); CONABIO, Pronatura, Universidad de Guadalajara, Universidad Nacional Autonoma de México; United States Fish and Wildlife Service, United States Geological Survey, Cornell Lab of Ornithology, National Audubon Society, Rocky Mountain Bird Observatory, Sonoran Joint Venture, Rio Grande Joint Venture, and American Bird Conservancy (U.S.). Many more organizations and individuals contributed to the assessment and design of the report.

To view *Saving Our Shared Birds: Partners in Flight Tri-National Vision for Landbird Conservation* and see a complete list of contributors, visit www.savingoursharedbirds.org.

Saving Our Shared Birds: A History and the Value of Process

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

Although the first tri-national meeting dedicated to crafting the most recent Partners in Flight (PIF) report, *Saving Our Shared Birds*, was held in late March 2008 in Saguaro Lake, Arizona, the roots of this latest vulnerability assessment go back much further. It originated when Partners in Flight (PIF) first listed the species that the initiative would take on. The PIF Winter 1992 newsletter published a list of 254 species in four categories, grouped not by vulnerability but rather by type of migratory behavior. Most were 'landbirds' as we understand them today. But the list also included Mountain Plover, Upland Sandpiper, Killdeer, and Long-billed Curlew—honorary landbirds from the outset.

But by the time that 1992 article appeared, it was already somewhat behind the curve. In September 1992, Chuck Hunter, Mike Carter, David Pashley, and Keith Barker presented a paper at the Estes Park PIF conference on what would become the initiative's foundation: the species assessment process. As species assessment was applied and bird conservation plans were written, all the borders—ecological, geographic, and taxonomic—began to dissolve. We realized that it was impractical to talk about grassland sparrows without talking about Long-billed Curlews. We saw that in conserving migrants we had to consider the residents sharing the same habitats. We realized that not only were states not big enough, but that countries weren't big enough either as planning units.



Cerulean Warbler. / Photo by Robert Royse

At a meeting in Mexico City between PIF, Bat Conservation International, and the precursor to CONABIO (the Mexican National Commission for the Knowledge and Use of Biodiversity), we even talked of bringing bats, butterflies, dragonflies, and other aerial migrants into PIF, predating the first conference of the Western Hemisphere Migratory Species Initiative by a decade.

But one step at a time. Visions always outrace the practical work that needs to be done. During its 1995 conference in Cape May, New Jersey, PIF launched what would become a seven-year period of that practical work. Regional and state bird conservation plans were written and a national plan (*Conservation of the Land Birds of the United States*, Pashley et al. 2000) was completed. This document contained a summary of the priority bird populations and habitats, conservation issues, and recommendations by physiographic area. The national plan also contained an update to the PIF Watch List. Notably, among the 123 Watch List species identified were not only landbirds, but also shorebirds, waterbirds, and waterfowl.

Everyone involved in that 2000 plan appreciated that laying a U.S. map cookie cutter over the ranges of birds in North America lopped off huge portions of many ranges both north and south. Almost immediately, work began on a larger scale. The resulting *North American Landbird Conservation Plan* (Rich et al. 2004) was by far the most sophisticated planning document that PIF had produced, treating all 448 species of landbirds that regularly breed in the U.S. and Canada. The species assessment process had been refined, and the species scores had undergone a decade of discussion and review. Thus, the 2004 Watch List of 100 species (landbirds only this time) was particularly sound. Other innovations in this continental plan included species population estimates, a monitoring needs assessment, population objectives, and a suite of new maps showing the occurrence of various groups of species during the breeding and non-breeding seasons.

Yet even as the 2004 plan was being crafted, we knew that this document, too, was only another step toward the assessment, plan, and strategies that ultimately were needed. Next stop: Mexico. But before we could take this next step, we needed to apply the species assessment process to Mexican birds. In fact, that assessment had

Continued next page

already begun in 2002 and, happily, was being applied to the entire Mexican avifauna, an accomplishment that neither the U.S. nor Canada could pull off within their own countries.

The Mexican assessment was completed in 2006, but then there was the need to “harmonize” the species scores among the U.S., Canada, and Mexico. Consensus building at this scale, for three countries, 882 species, and 6 scores per species, took time.

Most of the technical details were worked out by the time the PIF Science Committee gathered in Saguaro Lake in March 2008. A few of us thought that the *Tri-National Vision* report would be a relatively simple extension of the 2004 Continental Plan. Just take the approach of the 2004 plan and do it again at the larger taxonomic and geographic scales. We were wrong.

Some right-brained influences, an influx of educators and communicators, and the addition of a culture notably different from that of the U.S. and Canada caused us to toss off the 2004 model and face difficult, albeit important, questions: ‘who are our target audiences?’ and ‘what do we want them to do?’ And in the midst of our deliberations, the first *State of the Birds* report came out, offering a very different organization and format from what the PIF Science Committee was used to. So forget ‘Introduction-Methods-Results-Discussion.’ It wasn’t easy.

That brings us to 2010, the release of *SOS Birds*, and the 20th anniversary of PIF. While we celebrate two decades of landbird conservation this year, we also are looking down the road. Both Central America and the Caribbean are waiting, and we have Hawaii and the Pacific Islands on the radar, too. As is often the case, the value of creating something lies not only in the end product but also in the process. Thus we continue to believe that species assessment is absolutely invaluable.

Read the full *Tri-National Vision* report here, <http://www.savingoursharedbirds.org>, and judge for yourself. The other full reports mentioned above are available at <http://www.partnersinflight.org>.

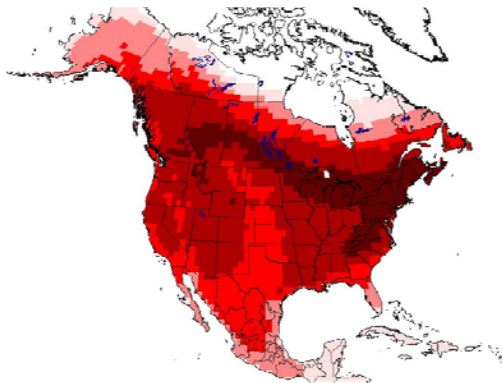
Taking a Lesson from the Birds: Full Life Cycle Conservation in the Southern Highlands of Mexico

Tom Will, Midwest Regional Wildlife Biologist, U.S. Fish and Wildlife Service

As bird conservationists, it makes sense to seek guidance from the birds. For a long-distance migratory songbird like Hermit Warbler, the seasons of its life are tightly linked to one another. Energy derived from just a few months in the insect-rich mountain forests of the U.S. Pacific Coast provides the nutrition for successful nesting. Quality food and cover during post-fledging nurtures the body condition that, with a bit of luck, makes it possible for a creature weighing a third of an ounce to travel more than two thousand miles to overwinter in the highland forests of Chiapas, Mexico. If these Mexican oak and pine-oak forests remain healthy and productive, then the Hermit Warbler may be fueled with enough energy to weather the challenges of its return journey and still have enough left over to reproduce again. If it is fortunate, it may even complete the cycle several more times.

Lesson One: We need to think like this bird, which lives one life in many places, and become stewards of its entire life cycle, sharing the seasons with it. We need to reach out beyond our seasons and our borders.

But the lesson does not end there. When the Hermit Warbler arrives in the pine-oak cloud forests of Chiapas, it is not alone. Along with hundreds of thousands of its own kind, it joins other migrant visitors from the northwestern and boreal forests of Canada—collectively nearly a



Breeding ground source of landbird migrants (all species) that winter in the highlands of Chiapas, Mexico, weighted by relative abundance. The darker the shade of red, the greater the number of birds. Map produced by Peter Blancher, Environment Canada.

Continued next page

quarter of a billion Yellow-rumped, Townsend's, Golden-cheeked, and Wilson's warblers, and other northern visitors that drop into the bromeliad-laden canopy or the shrubby understory of the highlands for their non-breeding season of life. There they join the Chiapas year-round residents—Pink-headed and Golden-browed warblers, Garnet- and Amethyst-throated hummingbirds, Blue Mockingbird, Russet Nightingale-Thrush, Scaled Antpitta and Unspotted Saw-whet Owl. They are part of the same massive continental avifauna. They share a forest and its resources, disperse its pollen, scatter its seeds, and glean its production.

Lesson Two: Year-round residents and half-year visitors do not seek sustenance independently of one another.

Unfortunately, the forest they share is in trouble. It is being hacked away at the edges, burned, thinned, invaded, pruned, robbed of its floral diversity, or cut down entirely. The montane pine-oak forest, as well as the cloud forest it shades into, is one of the most exploited and endangered ecosystems in Mesoamerica. It harbors not only relatively widespread bird species, but also threatened and endangered species. Pink-headed Warbler lives here year-round, an endemic to the highland forests of Chiapas and Guatemala. Golden-cheeked Warbler, endangered on its restricted breeding range on the Edwards Plateau of Texas, lives in these forests from southern Mexico through Honduras during its non-breeding season.

Thus, when the trees fall here, when the diverse orchid and bromeliad laden branches crash, along with the residents and visitors they nourish, the injury is felt in San Cristóbal de Las Casas, in western Oregon, in British Columbia, in the vast bogs of the boreal forest near Hudson Bay, and down the backbone of the Appalachians.

Lesson Three: When the land expires, many creatures are linked in its demise, not only species, but also the many unique ecological functions they perform.

To work for the conservation of land that supports diversity, people need to link together as well, sharing not only different regional perspectives, but also different skills needed for success.



Hermit Warbler. / Photo by Brian Sullivan

Enter [Pronatura Sur](#) and Reserva Huitepec, a small property on the slopes of an old volcano on the outskirts of San Cristóbal de Las Casas in the pine-oak forest core of the Chiapas Northern Highlands. All the birds mentioned above can be found in the epiphyte-festooned canopy of the massive cloud-forest oaks and the drier oak forests flanking the summit.

Enter the [Pacific Coast](#) and [Appalachian Mountain Joint Ventures](#), joined together from opposite sides of North America by the full life cycles of their respective forest birds that depend on a common locality in southern Mexico. The continued health of the Chiapas pine-oak forest sustains and fuels the reproductive success of these birds, which sing in British Columbia and Pennsylvania, as well as the threatened Pink-headed Warbler, whose forests they share for much of the year.

In addition to focusing biological knowledge on conservation design, the two bird habitat joint ventures contribute expertise in building the partnerships needed to deliver conservation. But in the forests of Chiapas, where their interests converge, is a complex culture, where birds, forest, indigenous highland Mayans, and Spanish colonial descendants share resources. Here the expertise of Pronatura is indispensable. Mexican partners bring more than local biological knowledge. They also offer the communication skills to reach out to local citizens and decision-makers, educate and motivate the next generation, and involve whole communities in a sustainable future.

Full life cycle stewardship brings people out of their backyards to share skills that keep the birds singing—skills to secure quality forest habitats that nourish birds and sustain the lives of the people who share the forests with birds and cannot imagine living without them.

Lesson Four: It's about the birds, where they live, how well they live there, and how well we live with them.

El Triunfo Shade Coffee and Birds

Claudia Macias and Rosa Ma. Vidal, Pronatura Sur A.C. and Fondo de Conservación El Triunfo

In the highlands of southern Mexico, thousands of rural families make a living from the production of coffee, an industry that continues to grow around the world. This is the case in the Sierra Madre de Chiapas, where coffee plantations are integrated into the landscape of the tropical highlands forest, in an altitudinal gradient from pine-oak to cloud forest. Some of the best coffee blends come from this area, where humidity and slow growth of coffee grains give a great aromatic flavor.

The Sierra Madre de Chiapas is a region of high biodiversity and considered one of the most important areas for birds and wildlife in Mexico. Thus three Biosphere Reserves have been established: La Sepultura, El Triunfo, and El Tacaná. The Mesoamerican Biological Corridor program supports activities to connect them.



Woman gathering coffee beans in the Sierra Madre de Chiapas. Women participate actively in harvest and coffee selection. / Photo by José Guadalupe Pérez Gómez

Among these protected areas, the best known is probably El Triunfo, with an area of 119,177 hectares. The reserve protects several of the largest patches of cloud forest in Mexico, which is considered one of the world's most threatened habitat types. El Triunfo is home of the Resplendent Quetzal, Horned Guan, and Azure-rumped Tanager (a micro-endemic species).

El Triunfo has one of the richest bird lists of a protected area in Mexico, with more than 371 species recorded, including 35% of all Mexican species. Of these species, 100 are Neotropical migratory birds. Due to its importance, El Triunfo was selected by the North American Bird Conservation Initiative Tri-National Committee as one of its priority sites for continental conservation.

More than 20% of the Reserve's area is under coffee production, and in the Sierra Madre this activity is the most important source of income. Producers include large, private *fincas* (farms), as well as small-scale farmers, who are organized in cooperatives. Since the 1980's, sustainable coffee production has been adopted

by most farmers in the region. Today more than 70% of the region's production comprises some type of certification, including bird-friendly-organic (Smithsonian-Organic Crop Improvement Association) and the sustainable coffee of the Rainforest Alliance. Both of these certifications include measures to keep the forest and the diversification of the shade of the plantation. Organic and fair trade producers are also incorporating biodiversity criteria into their practices.

Mexican coffee has traditionally been planted under the shade of tropical native trees. This is the production system of indigenous and small scale rural producers. Unfortunately, in the 1970's, the green revolution and governmental incentives to increase production promoted coffee production under two species of introduced shade, along with the removal of native forest. Today, the important environmental services provided by native shade grown coffee are widely recognized: the conservation of soil and water, habitat for biodiversity, and biological corridors and climate change mitigation.

Shade coffee plantations provide habitat to more than 150 species of birds, of which 30% are migratory species. Studies conducted by several ornithologists have also shown that the diversity of native species and vegetation (presence of epiphytes) affects the diversity of both resident and migratory species of birds.

In El Triunfo Reserve, several organizations, including Fondo de Conservación el Triunfo, Pronatura Sur, Conservation International, and the National Commission of Natural Protected Areas, among others, have supported communities and producers in promoting biodiversity conservation in coffee plantations. Efforts have included training, certification, establishment of land easements and corridors, marketing, and other diverse undertakings.

Continued next page

Recently a network of 14 grassroots organizations have developed a bird monitoring scheme in the Sierra Madre de Chiapas region. Sixty selected farmers have received training, and with the support of the Mesoamerican Biological Corridor Program, all have received binoculars and bird field guides. They have also learned the use of Global Positioning System and basic monitoring protocols. They have agreed to be part of a large grassroots monitoring team that will provide information to better understand the conditions of wildlife, especially bird populations, as well as other environmental indicators, such as soil, water, and carbon, which will subsequently allow people to adapt to the new conditions of climate change.

Several conservation projects have been conducted by the Regional Alliance for Birds, established in 2006 as a public-private partnership of organizations, including Ecosur and UNACH (educational and research institutions), Institute of Natural History of Chiapas (state agency), Pronatura Sur and Foncet (non-profits), and National Commission of Natural Protected Areas and SEMARNAT (federal agency) with the support of CONABIO. The Regional Alliance of Chiapas is now partnering with the Appalachian Mountain and Pacific Coast Joint Ventures in the U.S. and Canada to collaborate on conservation projects for shared species in critical Chiapas habitats.

Learn more about the work at El Triunfo here: <http://www.fondoeltriunfo.org/>.

The Western Hummingbird Partnership: Collaboration for Tri-National Conservation

Susan Wetthington, Executive Director, Hummingbird Monitoring Network and Coordinator, Western Hummingbird Partnership

Hummingbirds live only in the Western Hemisphere, where they are the second most diverse family of birds (approximately 340 species). Their diversity is well-represented among North American bird families, with 57 species, of which 40% are endemic to North America, 14% are substantially shared among the nations, 30% are migratory, and 14% are of high conservation concern. They pollinate a wide array of native plants that frequently grow in early successional stages of forest regeneration. Forests are the primary habitat for over 80% of hummingbird species, where many nest in later forest age classes than where their nectar plants grow. Despite their diversity and extreme popularity with humans, hummingbirds have received relatively little conservation attention.

The Western Hummingbird Partnership (WHP), a growing collaborative network of nonprofits, governmental agencies, universities, and individuals, is striving to use science-based monitoring, research, habitat restoration and enhancement, and education outreach projects to develop an efficient and effective conservation program and investigate what hummingbirds need to survive, successfully reproduce, and sustain viable populations. Its ultimate goal is to inform land owners, policy makers, and the public so habitats can be managed in ways that help hummingbirds and their communities thrive.

By 2008, the Hummingbird Monitoring Network (HMN), a grassroots non-profit organization dedicated to the conservation of hummingbird diversity and abundance throughout the Americas, had begun building tri-national partnerships to address concerns over steep declines in Rufous Hummingbird populations and the lack of adequate information to assess population trends for all but a few hummingbird species. In 2002, HMN began monitoring hummingbird populations in Arizona and California and expanded to British Columbia in 2004, when it became a non-profit organization. In 2007, partnerships with hummingbird biologists from Mexico led to the creation of La Red de Monitoreo de Colibríes (RMC) with founding partners from Universidad de Guadalajara (Jalisco), Universidad Nacional Autónoma de México (Mexico D.F. and Morelia, Michoacán), and HMN. After a workshop in April 2010, El Colegio de la Frontera Sur, San Cristóbal de las Casas, Chiapas joined the RMC.



Participants in the second hummingbird conservation workshop sponsored by RMC at Las Joyas Scientific Station in Sierra de Manantlán, one of 37 Biosphere Reserves in Mexico.

Continued next page

In April 2009, scientists, land managers, and conservationists from Mexico, the United States, and Canada came together for a multi-day workshop in Tucson, Arizona, funded by the U.S. Forest Service (USFS) International Programs and HMN, to discuss the conservation needs of North American hummingbirds. This first major meeting of the WHP included 82 representatives from 34 diverse institutions that included government agencies, non-profit conservation organizations, universities, and individuals. A primary goal of the WHP is to work in conjunction with other conservation efforts so resources can be effectively used to address hummingbird conservation issues. WHP founding partners include the USFS Pacific Southwest Region, the Hummingbird Monitoring Network, and the USFS International Programs and their Wings Across the Americas (WATA) program.



Cuba's Bee Hummingbird. / Photo by Ernesto Reyes

Of serious concern is the steep population declines of Rufous Hummingbird, as identified in the *Partners in Flight (PIF) Tri-national Vision* report. Based upon data from the Breeding Bird Survey since the mid 1960's, Rufous Hummingbird has an estimated 63% population loss. This species breeds in the northwestern United States and western Canada, migrates through the western U.S., and overwinters mainly in west-central Mexico; a small successful overwintering population also exists in the southeastern U.S. HMN's 2004-2006 monitoring data from British Columbia, California, and Arizona provide further evidence of this steep decline.

For most hummingbird species throughout the Western Hemisphere and in North America, particularly Mexico-restricted species, scientists have inadequate information to determine the causes of observed declines or even provide a basic understanding of the range, movements, and natural history. Due to hummingbirds' small size, rapid movement, high-pitched vocalizations, unique flight abilities, and other factors related to their ecology, techniques used to monitor most landbirds generally fail to provide adequate hummingbird population information. Long-term population trend data are

considered adequate for only four of the 16 species that regularly breed in the United States and Canada and are insufficient or non-existent for other hummingbird species.

Participants in the April 2009 Workshop identified three primary threats—global climate change, invasive species, and habitat destruction—as being of highest concern for hummingbirds. Perhaps the greatest threat to hummingbird survival is the effect of changing climates on flowering phenology, where even minor changes in climate can produce large changes in nectar availability and blooming dates that may decouple the mutualism between hummingbirds and the plants that they pollinate. Loss of forest habitat, either by direct destruction or alteration by invasive plants, is also of great concern. Modification of hummingbird habitats continues to increase and will likely change the distribution and viability of hummingbird communities, as well as exacerbate the impacts of climate change on plant phenology.

Fire is a factor of particular concern in western North America with regard to managing hummingbird habitats. Fires impact hummingbirds by affecting nesting substrate, foraging resources, predation, migration and wintering habitat, and presence of invasive plants. Fire management such as prescribed burning and post-fire restoration, however, can have significant effects on the regeneration of nectar resources and could be a valuable habitat management tool.

In the *PIF Tri-national Vision* report, the most steeply declining species in temperate forests are birds dependent on disturbed and early successional habitat. Managing a mosaic of forest age classes, as well as maintaining natural disturbance regimes such as fire, will be necessary to reverse declines of many forest birds. Since hummingbirds depend upon a variety of forest age classes for nesting and foraging, addressing their conservation needs could provide land managers with a way to develop the forest mosaics required for a broader group of priority species and could do so with the valuable support of conservation volunteers. Thus, the WHP can also contribute to an agency's, a land manager's, or a landowner's ability to meet their greater goals and priorities for ecosystem conservation in general. Learn more about WHP and HMN at <http://hummonnet.org/>.

Saving Our Shared Grassland Birds: The Importance of Research and Monitoring on the Wintering Grounds

Arvind Panjabi, International Program Director, Rocky Mountain Bird Observatory

Just eight grassland-dependent species are included in the 148 bird species in need of immediate conservation attention in the *Partners in Flight (PIF) Tri-national Vision* report. While these species make up only 5% of all species of high tri-national concern, they comprise a full 25% of the temperate breeders of high tri-national concern. Four of the eight grassland-dependent species in need of immediate conservation attention are migratory, and three of these, Sprague's Pipit, Baird's Sparrow, and Chestnut-collared Longspur, winter extensively or exclusively in the Chihuahuan Desert Grasslands. Because of their shared tri-national distribution, the conservation of these species depends on the actions and cooperation of Canada, the United States, and Mexico.

That these species rise to the level of tri-national concern serves as a reminder that temperate grasslands remain one of our most threatened and vulnerable ecosystems from a continental perspective. And, of course, it is not only these eight landbird species that are of high conservation concern in grasslands. Several shorebirds species of high concern and at least five other landbirds recognized by PIF as common birds in steep decline are also grassland-dependent. With this reminder to keep grassland birds high on our radar, we should also recognize that we still have a long way to go to understand how to reduce threats, restore populations, and halt the spiraling declines in so many grassland species.

While much important research on grassland bird breeding ecology has occurred, relatively little research has focused on wintering ecology. For migratory grassland birds breeding in the western Great Plains, even basic information on their distribution, regional abundance and habitat use in winter is lacking.

What we do know is that more than 80% of these species overwinter extensively or exclusively in the desert grasslands of the southwestern U.S. and northern Mexico. This highly restricted ecosystem, which occupies less than 10% of the Chihuahuan Desert landscape, is rapidly changing due expanding agriculture, inappropriate management, burgeoning human populations, and a changing climate. Given how little we know about what happens during this period in their life cycles, and the multiple causes for concern over wintering habitat, the most important frontiers for North American grassland bird conservation and research are on the wintering grounds, particularly in the grasslands of the Chihuahuan Desert and Sierra Madre Occidental in Mexico.

Recognizing both the scope and severity of the problem, as well as the opportunity for collaborative action, Rocky Mountain Bird Observatory (RMBO) launched an ambitious effort in 2007 to systematically inventory key grasslands in Mexico, characterize and quantify the grassland habitat and wintering bird populations in each, identify winter habitat requirements for priority grassland species, and monitor how these ecological patterns change over time and space. This effort will provide a scientific basis for a comprehensive range-wide approach to address the conservation needs of grassland species on their wintering grounds, and is one of several key actions needed to effectively conserve grassland birds.

Together with its partners from the Universidad Autónoma de Nuevo Leon, The Nature Conservancy-Chihuahua, the Universidad Juarez del Durango, Profaua-Coahuila, Biodiversidad y Desarrollo Armónico (BIDA), Sul Ross State University, and others, RMBO is implementing over 700 1-km line-transect surveys



Chihuahuan grasslands are critical to the survival of North America's shared grassland birds, supporting the majority of populations in winter. / Photo by Arvind Panjabi

Continued next page

annually for wintering birds in Chihuahuan Grassland Priority Conservation Areas across a seven-state area in northern Mexico and western Texas. This landmark project has been made possible thanks to financial support from the U.S. Fish and Wildlife Service's Neotropical Migratory Bird Conservation Act, U.S. Forest Service International Program, U.S. Department of Agriculture Rio Grande Research Station, Commission for Environmental Cooperation, Sonoran Joint Venture, and The Nature Conservancy.

Our efforts have resulted in the first ever annual snapshots of wintering grassland bird distribution, abundance, and habitat use across much of their core winter range. We have produced reasonably precise density estimates of 31 grassland-associated species, including 18 species of high regional or continental concern (including Sprague's Pipit, Baird's Sparrow, and Chestnut-collared Longspur), in ten large grassland areas across the Chihuahuan Desert of Mexico and the U.S. Thanks to this project, we now also have rigorous data on habitat requirements for 17 grassland species in winter.

Through this project we have also trained nearly 40 Mexican biologists in grassland bird identification and survey techniques. In collaboration with our partners, we are also expanding our conservation efforts to include research on overwinter survival in grassland birds, education of key audiences, and outreach to grassland owners and managers in Mexico and the U.S.

With more data collection and analyses planned, our knowledge of how to address grassland bird conservation needs in winter will continue to improve. To learn more about RMBO's Chihuahuan grassland bird conservation efforts, or to become involved, please visit <http://www.rmbo.org/v2/web/International/cdg.aspx>

Boreal Avian Modeling Project: An integrated, national-scale project for management and conservation of North America's boreal birds

Samantha Song, Environment Canada, Erin Bayne, University of Alberta, Steve Cumming, Université Laval, Trish Fontaine, University of Alberta, Catherine Rostron, University of Alberta, and Fiona Schmigelow, University of Alberta



Blackburnian Warbler. / Photo by John Reaume

The boreal region, with its vast network of forests and wetlands, is highlighted in the report, *Partners in Flight Tri-Nation Vision for Landbird Conservation*, as a vital nursery for breeding birds in North America. Each year the boreal forest supports the production of an estimated three to five billion landbirds of more than 200 species (Blancher 2003). It is the primary habitat for 40 species that are shared among nations, including the Canada Warbler, listed as a species of highest tri-national concern, and as a threatened species under Canada's Species-At-Risk Act.

The boreal forest is undergoing rapid economic development across its extent, as increasing demands and new technologies open up access to the biological and mineral wealth of this region. This poses significant challenges for management efforts to conserve migratory bird species. Systematic long-term monitoring data for these species are lacking, and we have limited understanding of the status, trends, distribution, and habitat associations of these species. It is therefore difficult to predict

the responses of migratory birds to individual stressors such as industrial development and climate change or to the cumulative effects of human activities in combination with changing environmental conditions. Similarly, managers and researchers are challenged to provide consistent and rigorous guidance on best management practices for species conservation across the region.

Given the remoteness and vast extent of boreal regions, implementing a comprehensive monitoring program will be a serious challenge. In the near term, managers and researchers are examining alternative and complementary approaches to improve the state of knowledge in an adaptive management framework.

Continued next page

The Boreal Avian Modeling (BAM) Project seeks to provide such an alternative by integrating the wealth of past studies in the North American boreal forest through an extensive partnership among academia, government agencies, non-governmental organizations, and the private sector. Thanks to our partners, we have assembled a large proportion of all the point count surveys conducted over the past 20 years across Canada's boreal forest into a single spatially registered database. This database is the foundation for a program of predictive statistical modeling of the distribution and abundance of migratory songbirds. In the next year, we will also work with our U.S. partners to add data from Alaska's boreal forest.

Our initial efforts are focused on addressing the significant variation in survey protocols among and within the 70+ studies in our database (e.g. survey radius, length of time, time of day). We have developed novel correction factors and detectability corrections. From this, we have generated initial estimates of population size as well as documented the variation in bird song frequency by time of day and season. Results are posted at <http://www.borealbirds.ca>. Our hope is that this work will stimulate the adoption of a standardized protocol for point count surveys in the boreal forest, among other applications.

We have also assembled a comprehensive catalogue of biophysical variables (e.g. vegetation, climate, hydrology, disturbance history) for use in explaining and predicting landbird response to environmental variation. Preliminary information on habitat associations for approximately 100 species is available at <http://www.borealbirds.ca> and we will be updating with results of analyses that incorporate the multitude of variables in our catalogue.

Many of our vegetation variables are remotely derived from satellite imagery, and thus lack information on key predictors of boreal landbird habitat, namely the age and composition of forest stands. This has stimulated a complementary project to assemble this digital forest resource inventory data, held proprietarily by individual forest companies and governments across Canada, into a standardized, consistent national data layer. Application of these data should lead to substantially improved models of species-habitat relations that are more sensitive to the effects of management actions.

These efforts set the stage for more refined analyses to predict the response of landbirds to environmental change, and importantly, to evaluate a multitude of potential scenarios of land use and climate change at regional and national scales. The BAM Project is well-positioned to support the efforts of migratory bird and other land managers.

Our models will assist in estimating the loss of boreal birds due to various human activities and will provide information on potential mitigation efforts. It will improve our ability to assess priority species and the status of species at risk and contribute to development of Bird Conservation Region plans and recovery strategies. And returning to the challenge of monitoring, BAM models are positioned to inform the strategic design of monitoring programs that will maximize the value of data collected per unit of effort invested.

The success of the BAM project and our ability to provide powerful tools for resource managers stems from the generous contributions of our data partners. We welcome the participation of any biologists wishing to contribute boreal data and extend the legacy of their individual projects, while expanding our sampling coverage and improving the applicability of our results.



Old-growth aspen-white spruce forests in western Canada host some of the highest landbird diversity in boreal forests. / Photo by Samantha Song

Bridging the Divide: Joint Ventures Supporting International Conservation in Mexico

Jennie Duberstein, Education and Outreach Coordinator, Sonoran Joint Venture

Neotropical migratory and resident bird populations throughout Mexico remain under-studied and poorly known, a fact that is highlighted in the new report, *Saving Our Shared Birds: Partners in Flight Tri-National Vision for Landbird Conservation*. Such a dearth of information about the status and distribution of birds in Mexico is due in large part to a lack of adequately trained on-site personnel to carry out needed monitoring and inventory work. Although Mexico has a number of federal natural protected areas (NPAs), they often lack staff capable of undertaking the design, implementation, data management, and analysis of bird monitoring efforts.



Practicing bird identification and monitoring techniques in the field at the Capacity Building Workshop for Aquatic Bird Monitoring, Mazatlán, Sinaloa, March 2010. / Photo by Jennie Duberstein

The Sonoran Joint Venture (SJV) is a partnership of organizations and individuals that share a commitment to conserving the unique birds and habitats of much of the southwestern United States and northwestern Mexico. It includes all or part of eight states in the two countries plus the Gulf of California and its associated islands. The varied topography and distinctive climate of the SJV region translate into an array of desert, scrubland, riparian, forest, and freshwater and saltwater wetland habitats. This variety, in turn, supports extremely diverse birdlife. Nearly 750 different bird species have been documented breeding in, wintering in, or migrating through the SJV region.

One goal of the SJV is to provide training and technical support to our partners. In March 2010, the SJV carried out two workshops Mazatlán, Sinaloa to train biologists, who conduct monitoring for the Mexican National

Commission of Natural Protected Areas (CONANP), in designing and implementing basic bird monitoring programs and projects. The Talleres de Capacitación para el Monitoreo de Aves en Áreas Naturales Protegidas en México (Capacity Building Workshops for Bird Monitoring in Natural Protected Areas in Mexico) brought together diverse partners to design and implement two five-day courses, the first focused on aquatic birds, the second on landbirds. With funding from the U.S. Forest Service International Programs and National Park Service Office of International Affairs and Park Flight Migratory Bird Program, the SJV worked with partners to design a curriculum that combined classroom learning with field practice sessions. Partners included CONANP, NABCI-Mexico, the National Autonomous University of Mexico in Mazatlán, CICESE, Rocky Mountain Bird Observatory, and Universidad Michoacana San Nicolas de Hidalgo.

Forty-five biologists attended the two workshops. Although most were from northwest Mexico, 27 different NPAs from all nine CONANP regions were represented. Biologists from the Marismas Nacionales Regional Alliance and two students from Durango, who are studying the Sierra Madre Sparrow, also attended. Regional alliances are the Mexican equivalent of U.S and Canada's bird habitat joint ventures.

Over the course of the five-day workshops, participants learned about Mexico's bird conservation priorities, regional, national, and international bird conservation plans, basic bird identification and field guide use, how to develop goals and objectives for monitoring programs, coordinated bird monitoring, different monitoring methodologies, sampling design and statistics, data management, and communicating results.

Some workshop participants were already bird biologists with significant experience in monitoring and research. For them this workshop presented an opportunity to coordinate with others doing similar work.

Continued next page

They were also able to refine current monitoring efforts, get advice and input from the workshop's expert instructors and, where possible, align efforts with other existing research to create a broader knowledge base for Mexican avifauna.

Other participants came with little to no experience with birds or bird monitoring. By the end of the workshop, these beginning birders had gained skills in bird identification and field guide use, were familiar with basic bird monitoring techniques, and were beginning to think about how to incorporate birds into the broad range of other flora and fauna monitoring going on in their NPA. All participants left the workshop with at least one goal and objective for bird monitoring in their area and clear plans for next steps.

These workshops were the first phase in what the SJV hopes will become a long-term effort for coordinated bird monitoring in Mexico. The JV is in the process of developing a website with protocols, methods, and other workshop materials to serve as a resource not only for workshop participants, but anyone with an interest in bird monitoring in Mexico.

The ultimate goal is to improve knowledge about the status and distribution of Neotropical migratory birds, as well as resident species, in priority areas in northwest Mexico and elsewhere in the country. Through the development of a coordinated effort and standardized protocols for bird monitoring, we hope to advance current knowledge of shared bird species and bridge the divide in conservation capacity that exists across the boundaries of Mexico and the United States and Canada.

Learn more about this workshop and other projects of the Sonoran Joint Venture here: <http://www.sonoranjv.org>.

Sharing Tools, Saving Birds: The American Birding Association's Birders' Exchange Program

Betty Petersen, Birders' Exchange Director, American Birding Association

Since the 1960's, there has been a steady decline of Neotropical migratory birds, species that breed in North America and winter in Latin America. Habitat destruction across North American nesting grounds, South American overwintering grounds, and migratory stopover sites is presumed to be the primary cause for population declines. Many Neotropical migrants will become locally rare and face extinction if these trends are not reversed in the near future.

Birders' Exchange, a program of the American Birding Association, assists in the preservation and conservation of these birds and their habitats by collecting used and new birding equipment and redistributing it, free of charge, to researchers, conservationists, and educators working to conserve birds and their habitats throughout Mexico, the Caribbean, Central America, and South America. These donations enable Latin American scientists and educators to gather the data needed to develop local conservation strategies and to educate citizens about bird conservation and ecosystem-wide habitat protection.



Participants in the Capacity Building Workshop for Landbird Monitoring in Natural Protected Areas in Mexico, held in Mazatlán, Sinaloa in March 2010. / Photo by Jennie Duberstein



Participants at a wetlands workshop in Tabasco, Mexico with field guides donated by Birders' Exchange. / Photo by Jim Corven

Continued next page

Do you remember the first time you looked at birds through binoculars? How they came alive with color, motion, and markings you'd never noticed before? You could really see the brilliant orange of a Blackburnian Warbler's throat and actually count the streaks on a Yellow Warbler's breast. You could identify these birds by these distinctive details, but would you be able to do so without binoculars or field guides?



Children in Rio Gallegos, Argentina use telescope donated by Birders' Exchange. / Photo by Germán Montero

Now imagine you've been asked to study birds in a remote or unfamiliar area. You're not sure what birds you'll find, but people are relying on you to come up with a plan to protect them. Could you succeed without optics or field guides?

Birders' Exchange collects and donates these and other essential tools to the winter guardians of hundreds of migratory and resident bird species throughout the Neotropics.

One example of the work of Birders' Exchange and how international collaboration helps support conservation is reported by Barbara MacKinnon, Coordinator of the Conservation of Birds of the Yucatan Peninsula Program, Amigos de Sian Ka'an A.C.:

"The Birder's Exchange Program, through its donations of binoculars, field guides, telescopes, caps, and back-

packs to bird conservation efforts on the Yucatan Peninsula in Mexico, has made an impressive impact on recipients. Training efforts, carried out in six communities within four important natural federal reserves on the peninsula since 2000, have created a solid base of community bird guides whose interest would dissipate if it were not for Birder's Exchange generosity in providing the basic equipment they need to practice what they have learned.

It is amazing to see how birds have changed people's lives as well as perceptions toward the need to protect habitat. Self-esteem is the first obvious outcome from training, since the majority of participants are adults who have not had the opportunity of formal education past primary school. The teaching of English bird names has led to English classes, as guides seek to better communicate with visitors. The Maya-speaking nature guides, in the community of Chunyaxché in the Sian Ka'an Biosphere Reserve in Quintana Roo, are now almost entirely tri-lingual! And the school children in Celestún are soliciting English classes as well, but want classes that include learning about birds, as they associate the two as part of the same process!

Motivation to learn more about birds comes first from increased economic benefits, through increased tips and work opportunities, to those who have learned best to identify birds in English. In addition, the best of the guides have been selected for advanced training in monitoring techniques and as field assistants to ornithologists working in the area. Without basic equipment, guides cannot expect to attain these results."

Birders' Exchange enhances local efforts, empowering conservationists at the grassroots level to be more effective in those priorities and projects that they have identified themselves. The program is helping those people already doing good work in Latin America and the Caribbean and aspiring to do more, but who are handicapped by the lack of essential equipment. Birders' Exchange is also an international networking tool, coupling goodwill between colleagues across the hemisphere with needed help for sound bird conservation.

Learn more about the Birders' Exchange on their website: <http://www.aba.org/bex/>.

Sharing a Passion for Bird Conservation Across the Americas

Joni Ellis, Director, Optics for the Tropics

Each year more than 350 species of birds migrate thousands of kilometers between the tropical climates of Latin America and the Caribbean and the temperate breeding grounds in the United States and Canada. The first step in conserving migratory birds is to instill in people an appreciation for the incredible challenges they face along this journey and the need to protect the habitats they depend on throughout their life cycle. This includes stimulating an interest in countries and cultures outside our own.

Birds offer a unique opportunity to make cross-cultural connections that will enhance our lives forever.

In 2001, I was fortunate to attend the Society of Caribbean Ornithology (now Society for the Conservation and Study of Caribbean Birds) meeting in Cuba. My mission was to see what was needed for partnerships between the Caribbean and the Southeast Partners in Flight (SEPIF) Working Group, specifically in Florida and Cuba. What was needed was beyond my scope to deliver as a state employee: the distribution of quality binoculars and scopes to ornithologists, field technicians, and educational facilities throughout the Caribbean and Latin America. So I started the non-profit, Optics for the Tropics (OFTT), to get the job done.



Training workshop for future instructors in Tamarindo, Jalisco, Mexico. / Photo by Barbara MacKinnon

For nine years OFTT has been working to provide quality optical equipment to ornithologists and educators in the Caribbean and Latin America. This work would not be possible without our corporate partnership with Eagle Optics that leverages our funds with a 1:1 match. Prominent partners such as the U.S. Forest Service International Programs and The Nature Conservancy have also provided matching funds to supply equipment to specific programs and projects.

Since migratory birds do not recognize political, cultural, or economic boundaries, collaboration among scientists throughout the Western Hemisphere is essential for bird conservation efforts to be successful.

But the playing field is not a level one. Equipment that is abundant in the U.S. and Canada is not easily available to many researchers in the Caribbean and Latin America. Providing binoculars and scopes throughout the Americas improves research and monitoring efforts which, in turn, guide the conservation of habitats crucial to the annual journey of migratory birds in the Western Hemisphere.

Over the past nine years, OFTT has donated 238 pairs of binoculars and 5 scopes to bird conservation and education programs in Mexico (Table 1, page 16). This was made possible in part due to the support of partners such as SEPIF, Park Flight: Mexico Sister Parks Program, Houston Audubon Society, Nature Canada, U.S. Forest Service, The Nature Conservancy, and Sonoran Joint Venture.

For example, last year members of the SEPIF provided more than \$3,000 in matching funds to supply 30 pairs of binoculars and 5 scopes to a variety of programs through the Chiapas Regional Alliance, the Mexican equivalent of bird habitat joint ventures in the U.S. and Canada. In addition, OFTT provides support for distributing International Migratory Bird Day educational materials in Mexico.

Sharing a passion for birds through partnerships like these can make a huge difference in the bird conservation work that is accomplished in critical areas of Mexico and those throughout Latin America and the Caribbean and beyond.

Learn more about the work of Optics for the Tropics by visiting <http://www.OpticsfortheTropics.org>.

Program	Organization	Area of Mexico
Guide Training for Young Adults	Eco-logic Latin America & Pronatura Sur	Chiapas
Birds of My City	Museo del las Aves de Mexico	Coahuila
Wintering Grassland Birds Ecology	Antonio Narro University	Coahuila
Conservation Through Birdwatching	Birdwatchers of Chihuahua	Chihuahua
Training in Biological Assessment	Rancho Ecologico Monte Mojino	Sonora
Mazatlan Bird Festival	Sendero México & Pronatura Noroeste	Mazatlán
Bird Observation in Estero del Yugo	REJUPA	Mazatlán
Bird Monitoring	Aves de El Cielo; Reserva de la Biosfera el Cielo	Tamaulipas
Birdwatchers Club	AVenturate Coahuila	Coahuila
Overwintering in the Riparian Habitats of Ayuquila River	University of Guadalajara	Jalisco
Study of Migratory Birds/eradicating slingshots/sister school project	Siuz Diaz, MX & Alison Quoyeser, CA	Sierra de Tapalpa
Bird ID Training for children in rural communities. Changing Slingshots for Binoculars.	Niños y Crias	Merida
Festival de las Aves de Yucatan	Amigos de Sian Ka'an	Merida
Shorebirds of the Yucatan Peninsula	El Colegio de la Frontera Sur	Chetumal/Celestun
Migratory Stopover Habitat, Grasslands of Nuevo Leon and San Luis Potosi, monitoring in Sierra Madres Oriental and Occidental, Birds of El Cielo Biosphere Reserve	Pronatura Noreste	Various sites; 4 projects
Bird Monitoring	Alturas de Banao Reserve	
Bird Conservation in Querétaro; training program	Sierra Gorda Biosphere Reserve	Querétaro
Environmental Education and Monitoring Programs	Chipinque Park in the Sierra Madre Mountains	Sierra Madre Mountains
Various Research Projects Submitted by College Students	Individual College Students	Various sites

Table 1. Summary of Mexico programs supported by Optics for the Tropics since 2001.

The Mysterious Decline of the Rusty Blackbird

Russ Greenburg, Head, Smithsonian Migratory Bird Center, Smithsonian Conservation Biology Institute, National Zoological Park

Breeding in wetlands throughout the North American boreal forests and wintering throughout the eastern United States, Rusty Blackbirds are still reasonably numerous. Numbers are estimated at hundreds of thousands or perhaps even one to two million. However, the severe negative trend in survey data and disappearance from regions where it formerly was a common breeding species has sent out an alarm to the bird conservation community. The plunging population numbers are even more alarming because the precise cause of the species downturn remains uncertain, so it is unclear what can be done to reverse it.

Data from the two most comprehensive monitoring programs for North American birds document the Rusty Blackbird decline. The Breeding Bird Survey, albeit limited in its coverage of the boreal zone, shows a forty-year decline averaging 12.5% per year, which adds up to a total decline of over 95%. These estimates are based on a relatively small number of survey routes (101), mainly concentrated in the southern boreal forests. The Christmas Bird Count, although less rigorous in its survey design, completely covers the winter range, with approximately 1600 count circles. The trend from CBC data during a similar 40-year period was about -4.3%/year (85% total).

Further evidence of Rusty Blackbird decline comes from regional survey and atlas projects. Repeated surveys of historical sites in New England and the Maritime Provinces have shown a range retraction from the southern edge of the species' distribution. Large areas of central Canada, where the species was formerly common, have been systematically surveyed for songbirds only to come up nearly empty when it comes to Rusty Blackbirds. On the other hand, numbers remain high in the northern boreal regions of Alaska, Northwest Territory, and the Hudson Lowlands of northern Ontario. Finally, a review of the historical literature suggests that Rusty Blackbirds were often considered abundant a century ago and that the species had suffered major declines before the recent 85-95% decline estimated by current survey programs.

Dissimilarities between Rusty Blackbirds and other species in this family may make them vulnerable to human disturbance in ways that other blackbirds are not. The species does not join the massive blackbird flocks that can darken agricultural habitats. Rusty Blackbirds tend to forage by themselves, or with a few other blackbirds and grackles, and remain in wooded wetlands and even the flooded understory of bottomland hardwoods. Less commonly they can be found away from swamps, foraging for pecans in yards and groves or even visiting bird feeders. Only at night, when roosting, do they sometimes join the large blackbird congregations. During the breeding season, they are spottily distributed around beaver-pond and other boreal wetlands, where dense patches of small trees are located near to shallow open water. Rusty Blackbirds are, therefore, more dependent on vulnerable wetland systems throughout the year than other blackbirds and grackles.

A number of causes of the Rusty Blackbird decline have been posited. The conversion of wetlands and bottomland hardwoods to agriculture, particularly in the Mississippi Valley, over the past two centuries has been staggering. It is very reasonable to assume that this large scale loss of habitat has contributed to the long-term decline of Rusty Blackbirds. However, it is unclear whether winter habitat



Rusty Blackbird. / Photo by Gerhard Hofman

Continued next page

loss and fragmentation alone can account for the 85-95% decline that the survey data suggest occurred over the past few decades. Clearing of the last remaining low, wet areas for soybean production during the 1970's may have also had a particularly harsh impact on Rusty Blackbirds.

The boreal forest habitat probably remained intact and reasonably pristine until recent decades. However, logging, electric power development, agricultural development, and fossil fuel extraction are taking their toll on boreal wetlands and this could explain a downward plunge of the species in the southern boreal forest. Industrial pollution, in the form of acid rain and atmospheric contaminants (such as mercury), also has a major impact, particularly on wetlands of southeastern Canada and northern U.S. Recent research shows that Rusty Blackbirds in the eastern boreal forest carry heavy loads of mercury, which may impact their ability to reproduce.

Boreal wetlands in particular are strongly affected by global climate change, through wetland drying and reduction of macroinvertebrates in the northern boreal, and perhaps changes in the phenology of their prey base (largely odonates) in the southern boreal. Other factors, including blackbird control programs in the 1970's, ongoing depredation, and loss of key migratory stopover habitat, must all be considered along with increases in disease, competition, and predation associated with an increasingly fragmented habitat.

The International Rusty Blackbird Technical Working Group (IRBTW http://nationalzoo.si.edu/SCBI/MigratoryBirds/Research/Rusty_Blackbird/twg.cfm) was founded in 2005 and has been joined by over 65 scientists and managers who are concerned with the plight of the Rusty Blackbird and are working toward understanding its causes. Activities of the group include research projects in the breeding and wintering grounds, symposia and workshops to enhance communication, public outreach, and the organization of citizen science ([eBird Rusty Blackbird Blitz](#)) to locate remaining strongholds for the species. The attention paid to this species is testimonial to the well-known conservation mantra: It is best to protect declining species before they become endangered.

SOS (Saving our Songbirds) on the Osa, Costa Rica

Craig Thompson, Regional Land Program Supervisor, Wisconsin Department of Natural Resources



Golden-winged Warbler. / Photo by Dennis E. Malvez

In southwest Costa Rica, where good roads are few and far between, a large land mass juts defiantly away from the country's sinuous coast into the turbulent Pacific. Inland of beaches occupied only by sea turtles and an occasional Red-footed Booby, an industrious Howler Monkey can travel for miles in unbroken canopy. Below, on the dimly lit forest floor, five species of cats—Jaguarundi, Margay, Ocelot, Mountain Lion, and Jaguar—prowl muddy trails, ever alert for their next meal. The Osa Peninsula is still a wild place.

Considered a global conservation priority due to exceptional species richness and high levels of endemism, 'the Osa' is a land of superlatives—pristine beaches, magnificent forests, ornate birds. The peninsula's ecosystems, the cornerstone of which is a 250,000-acre block of forest, are intact and functional, supported by a cast of thousands of species. But even in

this remote corner of Central America, storm clouds of change are gathering. The peninsula's flat lands have been largely cleared for cattle. Ocean views are fueling a growing real estate market for luxury development. And a proposed international airport on the Pacific slope portends massive landscape transformation.

Deep in the Osa's forests, among skulking antbirds and furtive agoutis, a surprising number of Wisconsin's breeding birds—54 species at last count—find safe harbor. Eighteen of these are conservation priorities, including Olive-sided Flycatcher, Wood Thrush, and Golden-winged Warbler. The Osa has served as their winter home for millennia. But today the future of their forested redoubt is anything but certain.

Continued next page

A case in point: the endangered Yellow-billed Cotinga, a habitat specialist that nests in the Osa's mangroves and forages in adjacent upland forests. For years conservationists have fretted while this rare tropical frugivore has careened toward extinction, the victim of habitat destruction. The fate of this Pacific Coast endemic and its preferred habitat are one.

Why should we care? Because the habitat dyad (mangroves and adjacent upland forest) required by the cotinga also provides essential wintering habitat for the Prothonotary Warbler, the "little yellow comet" of Wisconsin's (and eastern North America's) floodplain forests. Thus, the Osa is emblematic of a critical component in the calculus of conservation for this and many other landbirds: wintering habitat. If we want to hear the Prothonotary's rich "zweet zweet zweet" echo through stands of Silver Maple and Swamp White Oak every spring, protection of Latin America's forests is not optional.

Compelled by conservation need and opportunity, Wisconsin has stepped into the breach. Since 2009, a partnership has propelled the Badger State to the forefront of international bird conservation via the Association of Fish and Wildlife Agencies' [Southern Wings](#) (SW) program. Conceived in 2008, SW provides a biologically based vehicle to facilitate states' involvement in wintering ground protection throughout Latin America and the Caribbean. Within the SW framework, Wisconsin has joined forces with the American Bird Conservancy (ABC) and [Friends of the Osa](#) (FOO), a Costa Rican non-profit conservation organization, to protect the Osa's magnificent forests.

Since 2003, FOO has skillfully cultured a growing awareness of the Osa's biological treasures and the need to protect them. FOO has an ambitious, focused mission: ensure the Osa's forests are worth more standing than cut. The bottom line is ecosystem viability underpinned by sustainable local economies. Achieving this requires an organic, multi-faceted approach to conserving the peninsula's 13 distinct ecosystems. Sound science provides the foundation for their efforts, the core of which includes creation of a private protected area network buttressed by community and government support.

By design, the network will connect to Corcovado National Park, crown jewel of the Costa Rica park system. Rugged and remote, at 100,000 acres in size, Corcovado is not large enough to sustain wildlife that needs room to roam such as Jaguar, Mountain Lion, herds of Collared Peccary, and large forest raptors, including Harpy Eagle. The Corcovado-Matapalo Biological Corridor will effectively enlarge Corcovado by creating an archipelago of protected land extending from the park to Cabo Matapalo, the rocky headlands at the southern tip of the peninsula. Tens of thousands of acres of critical Neotropical migrant wintering habitat will be protected as a result.

Wisconsin's first venture south of the border was a resounding success. Our state-based partnership joined a coalition of international heavy hitters (ABC, The Nature Conservancy, Conservation International, The Gordon and Betty Moore Foundation, the Beneficia Foundation, and the Blue Moon Fund) that provided funds to protect a spectacular 1,500-acre property, Cerro Osa, a key piece of the growing linkage to Corcovado. The effort represents the beginning of Wisconsin's long-term commitment to save wintering habitat for our migratory birds.

Wintering habitat protection efforts are gaining steam nationally. It is no mere coincidence that Southern Wings is fledging at the same time Partners in Flight (PIF) celebrates twenty years of bird conservation. Indeed, SW has evolved from PIF's tireless efforts to expand the geography of bird conservation across the Western Hemisphere. By tapping the synergy of collaboration, both Southern Wings and PIF's *Tri-National Vision for Landbird Conservation* herald a new era of international cooperation on behalf of shared birds.



The Corcovado-Matapalo (C-M) Biological Corridor, Costa Rica will result in the protection of tens of thousands of acres of wintering habitat for Neotropical migratory birds.

Continued next page

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

The vision of NABCI is to see populations and habitats of North America's birds protected, restored, and enhanced through coordinated efforts at international, national, regional, state, and local levels, guided by sound science and effective management. The goal of NABCI is to deliver the full spectrum of bird conservation through regionally based, biologically driven, landscape-oriented partnerships.

The All-Bird Bulletin is a news and information-sharing publication for participants of NABCI.

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

The All-Bird Bulletin publishes news and information on infrastructure, planning, science, funding, and other advancements in the field of integrated bird conservation and management.

The seeds of locally driven, partner-supported conservation efforts are germinating throughout Latin America. Each new project provides an anchor for species drifting toward extinction while protecting vital migratory bird habitat. That is very good news, but much remains to be done.

The magnitude of forest destruction in the tropics is staggering. The anticipated loss of remaining habitat due to expected human population increases in Latin America over the next 40 years—100 to 360 million—casts an air of uncertainty over the region's surviving tropical forests and all species dependent on them, including Neotropical migrants.

Success will be predicated on implementation of habitat conservation strategies that span continents. Time is of the essence. As the clock ticks, forests fall and populations of many species of birds continue to decline. Their future is in our hands.

International Migratory Bird Day 2010: The Power of Partnerships

Sue Bonfield, IMBD Coordinator, Environment for the Americas

Local activism is at the heart of effective conservation, and it's what International Migratory Bird Day (IMBD) is all about. Created in 1993 by the Smithsonian Migratory Bird Center, IMBD was designed to be Partners in Flight's keystone education program. The annual event is now coordinated by Environment for the Americas and has gained widespread popularity, hosted by over 450 organizations throughout the Western Hemisphere. Many of the public and private agencies that are active in PIF serve as primary sponsors of IMBD. As PIF celebrates its bird conservation efforts over the past 20 years, IMBD is the ideal avenue for sharing these accomplishments on an international stage.

In honor of PIF's 20th Anniversary, the IMBD 2010 conservation theme focuses on "The Power of Partnerships in Bird Conservation." The successful collaborations that have benefited 20 bird species are showcased in the annual IMBD poster, education magazine, and website. Because the 'official' date for IMBD was May 8, 2010, hundreds of events have already been held. In addition, with support from the National Science Foundation, eight IMBD events are the focus of a three-year study to examine the barriers to Latino participation in informal science. Additional funds from the National Park Foundation are targeted to recruit Latino/Hispanic volunteers who will work with sites to engage communities in public events, such as IMBD.

IMBD's continued success is evident in its impressive growth. From 2008 to 2009, the number of events increased by 23%. In 2010, distribution of materials has already grown by at least 7%, meaning that over 20,000 annual education booklets and 40,000 posters were distributed before the official event date. With 20 bird species beautifully illustrated by artist Robert Petty, the materials have been described as "some of the best ever."

PIF's celebration of 20 years of bird conservation highlights many important accomplishments, and one of these is certainly the incredible outreach achieved with the launching of International Migratory Bird Day! For more information about IMBD, visit <http://www.birdday.org>.



American Redstart. / Art © Robert Petty