

Partners in Flight Symposium
“Tri-national Bird Conservation:
Shared Strategies for a Shared North American Avifauna”

**Cooper Ornithological Society/ American Ornithologists’ Union/
Society of Canadian Ornithologists Joint Meeting
9 February 2010
San Diego, California, USA**

Co-chairs: Kenneth V. Rosenberg (Cornell Lab of Ornithology), Andrew R. Couturier (Bird Studies Canada), Humberto A. Berlanga (Comisión Nacional para Conocimiento y Uso de la Biodiversidad), Peter J. Blancher (Canadian Wildlife Service), and Terrell D. Rich (U.S. Fish and Wildlife Service)

Over the past few years, the Partners in Flight Science Committee has worked with partners in Canada, the U.S. and Mexico to complete a vulnerability assessment of the 899 species of landbirds that regularly breed in the three countries (9% of the world’s avifauna). The goal was to produce a thorough and standardized assessment that can be used to prioritize conservation actions in North America. Results have been published in [**Saving Our Shared Bird: The Partners in Flight Tri-National Vision for Landbird Conservation**](#). The underlying theme of the document is to emphasize shared species, shared problems, and shared opportunities at the continental scale. Because this is the state-of-the-art analysis for bird conservation in North America, we believe professional ornithologists in all three societies will be interested in seeing the methods, results, and implications of this project.

ABSTRACTS

[**Deriving a Vision from the Birds: Crossing Boundaries to Share a Spectacular Avifauna, Concerns for its Future, and Innovative Opportunities for Action**](#) - T. Will, A.A. Dayer, H.A. Berlanga, and J. A. Kennedy

[**Species Vulnerability Assessment in Mexico: Process, Methodology, and Results**](#) - A. O. Panjabi, H.A. Berlanga, E.E. Iñigo-Elias, H. Gomez de Silva, and P.J. Blancher

[**Mapping Bird Conservation Priorities at the Continental Level**](#) - A.R. Couturier and P.J. Blancher

[**Immediate Conservation Priorities for Preventing Loss of Avifaunal Diversity at the Tri-National Scale**](#) - K.V. Rosenberg, P.J. Blancher, and V. Rodriguez

[**Range-Restriction and Conservation of Mexican Avifauna: Implications of High Endemism and Focal Areas for Species of High Concern**](#) - C. Arizmendi, R. Ma Vidal, V. Rodriguez, and T. Will

[Common Birds in Decline in North America](#) - T.D. Rich, P.J. Blancher, W.E. Easton, and E.E. Iñigo-Elias

[Boreal Nursery to Tropical Cradle: Shared Responsibility for a Shared Continental Avifauna](#) - P. J. Blancher, C. Macias, E. A. Krebs, A. R. Couturier, and T. Will,

[Needs and Opportunities for Expanding Bird Monitoring in Mexico](#) - C. Arizmendi, H.A. Berlanga, and V. Rodriguez

[Information Gaps on Limiting Factors and Other Critical Research Needs for Landbird Conservation](#) - J.M. Ruth, C. Arizmendi, K.V. Rosenberg, and P.J. Blancher

[Building International Capacity for Bird Conservation in Mexico – the Power of Regional Partnerships](#) - D.W. Demarest, M. Gustafson, R. Ma. Vidal, and C.J. Beardmore

* * * * *

DERIVING A VISION FROM THE BIRDS: CROSSING BOUNDARIES TO SHARE A SPECTACULAR AVIFAUNA, CONCERNS FOR ITS FUTURE, AND INNOVATIVE OPPORTUNITIES FOR ACTION

T. WILL, U.S. Fish & Wildlife Service, Fort Snelling, Minnesota, USA, Tom_Will@fws.gov; **A. A. Dayer**, Cornell Univ., Ithaca, New York, USA; **H. Berlanga**, CONABIO, Mexico City, Mexico; **J. A. Kennedy**, Environment Canada, Ottawa, Ontario, Canada.

In defining a new vision for bird conservation, Partners in Flight Canada, Mexico, and the U.S. took its lead from the birds themselves—a spectacular avifauna of 882 native landbird species that disregards international boundaries, shares ecosystems across annual life cycles, is vulnerable to common anthropogenic threats, and inspires action on its behalf through shared beauty, cultural importance, ecosystem services, and value as an indicator of a healthy planet. The shape of the North American continent prescribes a unique avifaunal geography—spectacular abundance of breeding migrants across vast expanses of northern Canada and Alaska funnelling toward increasing species richness and local endemism where temperate and tropical systems meet in Mexico. PIF’s conservation vulnerability assessment highlights the loss of bird diversity and habitats of greatest concern, the loss of spectacle as common birds continue to decline, and the need for trans-boundary action. The resulting tri-national vision calls for collective stewardship by all three countries of the entire continental avifauna through imaginative, integrated approaches that engage institutions, corporations, communities, policies, and land use to revitalize the space shared by birds and people.

SPECIES VULNERABILITY ASSESSMENT IN MEXICO: PROCESS, METHODOLOGY, AND RESULTS

A. O. PANJABI, Rocky Mtn. Bird Obs., Fort Collins, Colorado, USA, Arvind.Panjabi@rmbo.org ; **H. Berlanga**, CONABIO, Mexico City, D.F., Mexico; **E. E. Iñigo-Elias**, Cornell Lab of Ornithology, Ithaca, New York, USA; **H. Gomez de Silva**, UNAM, Mexico City, D.F., Mexico; **P. Blancher**, Canadian Wildlife Service, Ottawa, Ontario, Canada.

Under CONABIO's leadership, we conducted a conservation vulnerability assessment of the entire Mexican breeding avifauna using the same Partners in Flight (PIF) criteria applied in Canada and USA. Assessments were conducted during workshops involving 112 Mexican ornithologists and wildlife managers. We evaluated global distribution, population size, population trend and threats for 592 Mexican breeding species that had not previously been assessed under PIF criteria or otherwise had at least half their North American range within Mexico. We relied on published accounts, empirical data and expert opinion to assign factor scores for each species. Where published accounts were unavailable, we developed an alternative method to assign population size scores. The Mexican assessment data were integrated with those from USA and Canada to form a single tri-national assessment database for landbirds. Of the 822 landbird species found in Mexico, 390 (47%) are shared with USA and Canada, 133 (16%) are of immediate conservation concern, and an additional 178 (22%) exhibit high vulnerability equivalent to PIF Watch List status, demonstrating the overall high importance of conservation for North American landbirds in Mexico.

MAPPING BIRD CONSERVATION PRIORITIES AT THE CONTINENTAL LEVEL

A.R. COUTURIER, Bird Studies Canada, Port Rowan, ON, Canada, acouturier@BSC-EOC.ORG ; **P.J. Blancher**, Environment Canada, Ottawa, ON, Canada.

Policy-makers and land managers require scientifically rigorous information at a variety of scales in order to set policy direction and to make prudent environmental management decisions. Partners in Flight is currently identifying conservation priorities for landbirds at the scale of the North American continent. This 'big picture' approach is very useful for emphasizing the interconnectedness of North American avifauna and the importance of international cooperation to its conservation. Maps are an integral component of this approach, due to their ability to synthesize large volumes of information and present it in a simplified form. As part of the Partners in Flight Species Assessment process, we developed mapping and analysis techniques capable of handling the several thousand bird species contained in NatureServe's database of bird range maps of the Western Hemisphere. Key products include maps that depict the overlap of neotropical migrants with Mexican residents in winter, identify key linkages among countries, and describe general patterns of avian diversity at the continental scale.

IMMEDIATE CONSERVATION PRIORITIES FOR PREVENTING LOSS OF AVIFAUNAL DIVERSITY AT THE TRI-NATIONAL SCALE

K. V. ROSENBERG, Cornell Lab of Ornithology, Ithaca, New York, USA, kvr2@cornell.edu ; **P. J. Blancher**, Environment Canada, Ottawa, Ontario, Canada; **V. Rodriguez**, Comisión Nacional para Conocimiento y Uso de la Biodiversidad, Mexico City, Mexico.

Assessment of conservation vulnerability across 882 native landbird species that breed in Canada, USA, and Mexico identified 147 species in need of immediate conservation action to prevent extinction or extirpation from North America. For 60 species at greatest risk, high or severe threats are exacerbated by small global populations and very limited distributions. Most are Mexican endemics and are concentrated in tropical dry and highland forests. An additional 44 Meso-American forest species and 24 widespread South American species are at the northern limit of their distribution in southern Mexico, where populations are highly threatened. The remaining 19 species with high threats and declining populations are widely distributed in temperate and boreal forests, grasslands, and aridlands. The most critical conservation actions to prevent loss of the continental avifauna include (1) increased support for a network of protected areas in Mexico, linked to forest reserves throughout Central and South America; (2) implementation of endangered species recovery plans in each country; and (3) community-based conservation initiatives and land-use policies that promote sustainable agriculture, forestry, and energy development, and that limit urban sprawl.

**RANGE-RESTRICTION AND CONSERVATION OF MEXICAN AVIFAUNA:
IMPLICATIONS OF HIGH ENDEMISM AND FOCAL AREAS FOR SPECIES OF HIGH
CONCERN**

C. ARIZMENDI, FES Iztacala, UNAM, México D.F., coro@servidor.unam.mx ; **R. Ma Vidal**, Pronatura-Sur, San Cristobal de Las Casas, México; **V. Rodriguez**, CONABIO, México D.F., México; **T. Will**, U.S. Fish & Wildlife Service, Fort Snelling, Minnesota, USA.

Almost a third of all North American landbirds—276 species—are endemic to North America. Of these 96 species are found only within Mexican territory and 15 only in the U.S. At a broad scale, hotspots of endemism are the Transvolcanic Belt, the tropical dry forest of the Pacific Slope, the Balsas River Basin, Yucatan Peninsula, and the Southern Tropical Highlands in Mexico. In addition 93 species have a restricted distribution during their life cycle and depend on specialized habitats. The conservation vulnerability assessment indicates that 60 range-restricted species need of immediate conservation attention; most of these (50) are in México and 34 are country endemic. Main threats are forest fragmentation due to agriculture, logging and livestock, and their populations are unknown. For achieving conservation we still need research on basic natural history. Measures of habitat management need to address habitat degradation and protection, and strategies need to actively involve local land owners. In order to prevent extinctions of our shared North America avifauna conservation designs must address both highly range-restricted “micro”-endemics as well as broader-scale regional centers of endemism.

COMMON BIRDS IN DECLINE IN NORTH AMERICA

T. D. RICH, U.S. Fish & Wildlife Service, Boise, Idaho, USA, Terry_Rich@fws.gov ; **P. J. Blancher**, Environment Canada, Ottawa, Ontario, Canada; **W. E. Easton**, Canadian Wildlife Service, Delta, British Columbia, Canada; **E. E. Iñigo-Elias**, Cornell Lab of Ornithology, Ithaca, New York, USA.

North American nations (Canada, Mexico, and the U.S.) share responsibility for nearly 900 species of landbirds. We identified 42 species whose populations have declined by 50% or more in the past 40 years. Most of these have not been identified as species of high concern by Partners in Flight or Birdlife. But their steep population declines are important ecologically; the combined loss across these species is estimated at 800 million breeding birds—roughly two-thirds of the breeding bird population present 40 years ago. Most of these species are migrants that breed primarily in the northern U.S. and southern Canada, and winter in the southern U.S., Mexico, or farther south. We lack long-term monitoring data for most Mexican species, so it is likely that many common birds have declined there as well. Among the major threats to these species are the loss and fragmentation of habitat. Reversing these declines will require improved land-use practices and policies in all three countries. It also will require the conservation community to become more effective in working for the maintenance and restoration of ecosystems.

BOREAL NURSERY TO TROPICAL CRADLE: SHARED RESPONSIBILITY FOR A SHARED CONTINENTAL AVIFAUNA

P. J. BLANCHER, Environment Canada, Ottawa, Ontario, Canada, Peter.Blancher@ec.gc.ca ; **C. Macias**, Pronatura Sur, Tuxtla Gutiérrez, Mexico; **E. A. Krebs**, Canadian Wildlife Service, Delta, British Columbia, Canada; **A. R. Couturier**, Bird Studies Canada, Port Rowan, Ontario, Canada; **T. Will**, USFWS, Fort Snelling, Minnesota, USA.

Conservation efforts often focus at the local scale, leaving critical linkages at larger spatial scales unexamined. Identifying the distribution of North American birds across their annual cycle will aid in prioritizing our conservation effects. We examined the distribution of native landbird species from Canada, USA and Mexico and evaluated the extent to which species responsibility was shared. Close to half are found regularly in at least 2 of the 3 countries at some point in their annual lifecycle. One-quarter are shared across all three countries, but in total we estimate that these species account for over 80% of the individual landbirds in North America. Billions of shared migrants exert a strong influence on ecosystem function as they travel across the continent. Birds shared among all three countries are particularly well represented in boreal forests during the breeding season and in Mexican forests in winter. In Mexico, shared species wintering there show a strong overlap with highly threatened resident species, suggesting shared conservation efforts in these areas will be highly effective.

NEEDS AND OPPORTUNITIES FOR EXPANDING BIRD MONITORING IN MEXICO

C. ARIZMENDI, FES Iztacala, UNAM, México D.F., coro@servidor.unam.mx; **H.A. Berlanga** and **V. Rodriguez**, National Commission for the Knowledge and Use of Biodiversity (CONABIO), Mexico City, Mexico.

In the last two decades Mexico has greatly increased its technical and institutional capabilities to address bird conservation challenges. Nevertheless there is a tremendous need to develop a sustainable long-term platform to monitor its national avifauna to generate reliable information for planning and decision making. Mexico's territory contains several endemic species and is essential to understand bird migrations in North America. In order to contribute to address this lack of information, Mexico's National Commission for the Knowledge and Use of Biodiversity have partnered with several agencies and institutions, to design, promote and implement long term monitoring efforts such as the Mesoamerican Biological Corridor Monitoring strategy, the Breeding Bird Survey; aVerAves (eBird México); etc. We present current progress in the development and implementation of these programs and analyze opportunities, future needs and challenges to organize and operate a permanent Mexican monitoring platform particularly for highly vulnerable species associated to unclear or unknown population trends and restricted ranges.

INFORMATION GAPS ON LIMITING FACTORS AND OTHER CRITICAL RESEARCH NEEDS FOR LANDBIRD CONSERVATION

J. M. RUTH, USGS Arid Lands Field Station, Albuquerque, New Mexico, USA, Janet_Ruth@usgs.gov ; **C. Arizmendi**, FES Iztacala, UNAM, México City, Mexico; **K. V. Rosenberg**, Cornell Lab of Ornithology, Ithaca, New York, USA; **P. J. Blancher**, Environment Canada, National Wildlife Research Centre, Ottawa, Ontario, Canada.

The Partners in Flight (PIF) “Saving our Shared Birds” document to be released in 2010 and PIF International Conference proceedings from McAllen, TX identify research required to support the conservation of North American landbirds. They include three broad, high priority research areas: (1) filling crucial gaps in our knowledge of the ecology, life history, and limiting factors for priority bird species; (2) studying effects of human actions on birds and habitats of conservation concern; and (3) socio-economic research related to bird conservation. Additionally, modeling is a critical tool for addressing many research needs and for conservation planning and design. Examples of high-priority research needs from a continental perspective include identifying seasonal connectivity for full life-cycle conservation of migratory species, comparing habitat needs of wintering migrants and highly threatened endemic species in tropical forests, and modeling species’ response to climate change and other large-scale stressors. Scientists and managers from all three countries (Canada, USA, and Mexico) must work together to apply these general research priorities to a local or regional level, conduct collaborative research, and disseminate the information to end users.

BUILDING INTERNATIONAL CAPACITY FOR BIRD CONSERVATION IN MEXICO – THE POWER OF REGIONAL PARTNERSHIPS

D. W. DEMAREST, U.S. Fish and Wildlife Service, Atlanta, Georgia, USA, Dean_Demarest@fws.gov ; **M. Gustafson**, Texas Parks & Wildlife Dept., Rio Grande Joint Venture, McAllen, Texas, USA; **R. Ma. Vidal**, Pronatura-Sur, San Cristobal de Las Casas, México; **C. J. Beardmore**, U.S. Fish & Wildlife Service, Sonoran Joint Venture, Phoenix, Arizona, USA.

Effectively addressing many of the highest North American bird conservation priorities will require focused international attention on ecological and socio-political factors influencing birds and their habitats in Mexico. Several relatively new international collaborations are helping improve the capacity for bird conservation in Mexico by coordinating efforts of partner organizations, leveraging and directing resources towards common goals, promoting awareness and political support, and advancing partnership approaches modeled after successful efforts elsewhere in North America. At the heart of these collaborations is the acknowledgement that successful conservation of North American avifauna must be grounded in principles of full life-cycle stewardship, and must address species sustainability issues at landscape scales. While there is an emphasis on building functional capacity within Mexico to better address long-term bird conservation challenges, this is a tenuous goal as most of these initiatives are only just becoming established. Success and expansion of these initiatives and the ultimate conservation of birds in Mexico demands sustained commitment and support from international partners.