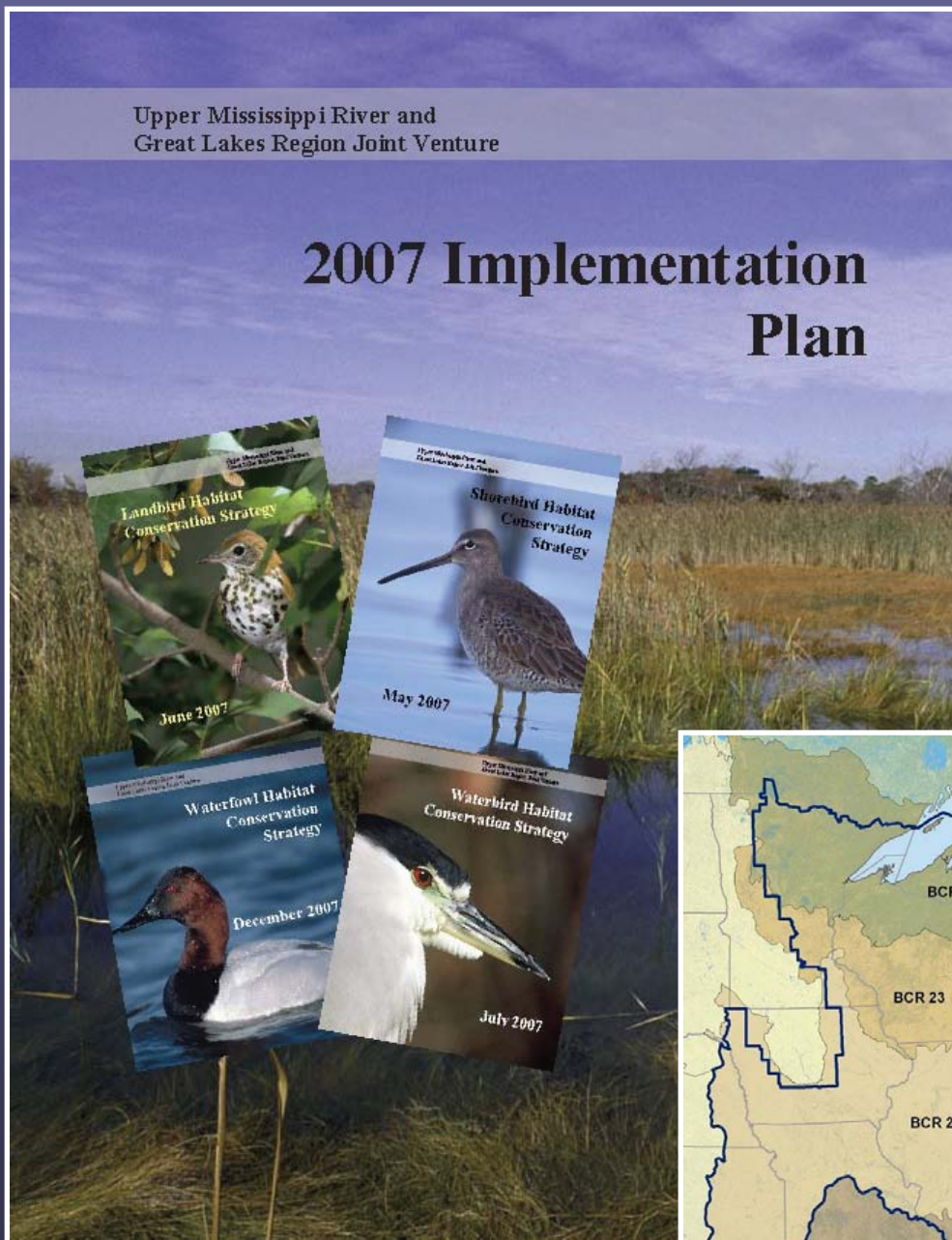


Upper Mississippi River and Great Lakes Region Joint Venture Science Office

Annual Report 2008



Joint Venture Science Office

First Annual Report: Developed to inform and update on the role, vision, and recent accomplishments of JV staff and associated biologists that form the JV Science Team. We welcome and value feedback from our partners.

Mission: The Upper Mississippi River and Great Lakes Region Joint Venture will deliver a full spectrum of bird conservation through regionally based, biologically driven, landscape-oriented partnerships.

Following JV Management Board direction, the Science Staff and Technical Committee will improve the scientific foundation of bird conservation within the JV region. Management Board technical priorities include:

- Apply scientific information to support strategic planning and implementation of all-bird conservation.
- Identify sources of uncertainty and evaluate biological assumptions of JV objectives.
- Provide a framework for coordinated habitat and population monitoring and evaluation.
- Maintain strong links among planning, implementation, and evaluation to improve delivery of all-bird conservation at multiple scales.

Vision: Working with partners, the JV Science Office will help assure healthy self-sustaining populations of priority bird species. Superior outcomes in planning and coordination will result from strong partner relationships and mutual support, exemplifying the synergy of joint ventures.

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Joint Venture web site:
www.UpperMissGreatLakesJV.org

Personnel

Greg Soulliere: Greg has served as the JV Regional Science Coordinator for four years. His goal is to improve the science foundation used for bird habitat conservation decisions, ultimately increasing the efficiency and effectiveness of the JV partnership. He has extensive field experience in waterfowl and wetland ecology and waterbird habitat management, and a growing understanding of the habitat requirements for other bird groups. He chairs the JV Technical Committee and Science Team, a collection of scientists providing technical guidance to JV partners who carry out bird habitat delivery.

Greg received a M.S. degree in Wildlife Management at the University of Wisconsin, where he studied the biology and ecology of cavity nesting ducks. His B.S. in Wildlife Biology is from Michigan State University. Greg also completed an MBA at Lake Superior State University, fueling an interest in human resources management and applying business concepts to natural resource decision making.

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Brad Potter: Brad has been a Biological Technician with the JV Science Office since 2005. His work involves assisting the JV partnership with landscape scale habitat and population models, in addition to organizing and distributing GIS data. Brad serves on the Joint Venture shorebird and landbird subcommittees, but assists in developing many JV science products. His career interests include using advancing technology and methods for landscape level planning and designing models that can be used and tested through Strategic Habitat Conservation.

Brad received a M.S. degree in Conservation Biology from Central Michigan University where he studied wildlife crossing locations along highways in the northern Lower Peninsula of Michigan. He also received his B.S. degree in Biology at Central Michigan University where his interest in using GIS for wildlife management began by using a spatial model to predict abundance and distribution of wolf habitat in the northern Lower Peninsula of Michigan.

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Bird-group Committees - “JV Science Team”

2007-2008

The Joint Venture Science Team consists of eleven JV Technical Committee members plus ten ad hoc members with expertise in bird habitat conservation and biological modeling. This group of scientists was responsible for completion of the 2007 JV Implementation Plan and associated Bird-group Strategies. With the exception of JV Staff (Potter and Soulliere), Science Team members serve on a voluntary basis. Their contributions and dedication reflect the best of the JV science partnership.

Waterfowl

John Coluccy, DU (co-chair)
Greg Soulliere, FWS (co-chair)
Todd Bishop, IA DNR
Pat Brown, MI NFI
Mike Eichholz, SIU
Ron Gatti, WI DNR
Dave Luukkonen, MI DNR
Charlotte Roy, SIU and MN DNR
Josh Stafford, IL NHS

Landbirds

David Ewert, TNC (chair)
John Castrale, IN DNR
Melinda Knutson, FWS
Brad Potter, FWS
Michael Roell, MO DOC
Greg Soulliere, FWS
Wayne Thogmartin, USGS
Tom Will, FWS

Shorebirds

Robert Gates, OSU (chair)
David Ewert, TNC
Diane Granfors, FWS
Brad Potter, FWS
Bob Russell, FWS
Mark Shieldcastle, OH DNR
Greg Soulliere, FWS

Waterbirds

Dan Holm, IL DNR (chair)
Robert Gates, OSU
Diane Granfors, FWS
Steve Lewis, FWS
Mike Monfils, MNFI/MSU
Greg Soulliere, FWS
Wayne Thogmartin, USGS

Primary Science Office Objectives and Accomplishments for 2008

Using a scientific process, identify habitat requirements for bird species of greatest concern in the JV region.

This objective was largely accomplished in early 2008 with completion of the Joint Venture All-bird Implementation Plan and associated bird-group strategies. Plan

documents contain species and guild (groups of birds dependent on same cover type) accounts for birds considered a regional conservation priority.

The JV Science Team identified habitat requirements using a scientific process with model-based calculations for breeding “focal species” and guilds occurring in the region during the non-breeding period (migration and wintering).

Improve bird habitat management partnerships and incorporate an adaptive approach in planning.

In addition to collaboration at informational meetings, formal presentations were conducted for several state wildlife agencies. JV plan “marketing” and information

sharing resulted in follow-up requests for science products to better target conservation.

A scientific and adaptive planning approach was thoroughly incorporated into JV bird-group strategies and the JV All-bird Implementation Plan. Feedback on plan products, plus completion of evaluation needs identified in documents, will result in refinements to future plan iterations.

Provide quality customer service and technical assistance to partners.

Networking with the science community improved our understanding of regional bird conservation issues, partner interests and available resources, and ongoing bird research, monitoring, and management initiatives.

JV Science Team members represent various agencies, organizations, and disciplines, and their efforts collectively enhanced JV science foundation, largely on a volunteer basis. Keeping these partners engaged in JV bird conservation planning required regular communication (email, phone, and in person). We also assisted partners by reviewing their research proposals as helping in the field with some research projects.

The JV science office is now recognized for regional GIS information and landscape planning products developed with digital spatial data. Technical assistance and input to conservation initiatives was provided when requested. GIS files created during the planning process were logically organized to improve response time for requests. A strong relationship with researchers using spatial data and modeling has improved our ability to design landscapes and has fueled discussion about potential data sources useful to future planning.

Publications and Professional Reports

2007-2008

- Denton, J. C., C. L. Roy, G. J. Soulliere, and B. A. Potter. 2008 *Draft*. **Change in nest site availability for cavity-nesting waterfowl in the Upper Mississippi River and Great Lakes Region.** Journal of Wildlife Management.
- Wires, L. R., S. J. Lewis, G. J. Soulliere, S. Matteson, C. Weseloh, and R. Russell. 2008 *In review*. **Upper Mississippi Valley / Great Lakes Waterbird Conservation Plan.** U.S. Fish and Wildlife Service, Fort Snelling, MN.
- Potter, B. A. 2008 *Draft*. **Strategies for Tracking Landscape Change within the Upper Mississippi River and Great Lakes Joint Venture Region.**
- Potter, B. A., and Hosler, B. 2008 *Draft*. **Landscape Design for Conservation of the Northern Population Segment of Copperbelly Water Snake.** Report to the U.S. Fish and Wildlife Service Ecological Services Field Office, East Lansing, Michigan, USA. 35pp.
- Soulliere, G. J., and B. J. Pardo. 2008. **Upper Mississippi River and Great Lakes Region Joint Venture Completes Implementation Plan.** U. S. Fish and Wildlife Service, Region 3 Newsletter.
- Potter, B. A., and G. J. Soulliere. 2008. **Upper Mississippi River and Great Lakes Region Joint Venture** (informational flyer). U.S. Fish and Wildlife Service, Fort Snelling, Minnesota. 2pp.
- Yerkes, T., R. Page, R. MaCleod, L. Armstrong, G. Soulliere, and R. Gatti. 2007. **Predicted distribution and characteristics of wetlands used by mallard pairs in five Great Lakes states.** American Midland Naturalist 157:356-364.
- UMRGLR JV. 2007. **Upper Mississippi River and Great Lakes Region Joint Venture Implementation Plan** (compiled by G. J. Soulliere and B. A. Potter) U.S. Fish and Wildlife Service, Fort Snelling, Minnesota, USA. 75pp.
- Soulliere, G. J., B. A. Potter, J. M. Coluccy, R. C. Gatti., C. L. Roy, D. R. Luukkonen, P. W. Brown, and M. W. Eichholz. 2007. **Upper Mississippi River and Great Lakes Region Joint Venture Waterfowl Habitat Conservation Strategy.** U.S. Fish and Wildlife Service, Fort Snelling, Minnesota, USA. 117pp.
- Potter, B. A., G. J. Soulliere, D. N. Ewert, M. G. Knutson, W. E. Thogmartin, J. S. Castrale, and M. J. Roell. 2007. **Upper Mississippi River and Great Lakes Region Joint Venture Landbird Habitat Conservation Strategy.** U. S. Fish and Wildlife Service, Fort Snelling, MN. 124pp.
- Potter, B. A., R. J. Gates, G. J. Soulliere, R. P. Russell, D. A. Granfors, and D. N. Ewert. 2007. **Upper Mississippi River and Great Lakes Region Joint Venture Shorebird Habitat Conservation Strategy.** U.S. Fish and Wildlife Service, Fort Snelling, MN. 102pp.
- Soulliere, G. J., B. A. Potter, D. J. Holm, D. A. Granfors, M. J. Monfils, S. J. Lewis, and W. E. Thogmartin. 2007. **Upper Mississippi River and Great Lakes Region Joint Venture Waterbird Habitat Conservation Strategy.** U.S. Fish and Wildlife Service, Fort Snelling, MN. 68pp.



Professional Presentations and Posters

2007-2008

- Soulliere, G. S. December 2008. **Connecting refuges and private lands in the Great Lakes Joint Venture Region.** 3rd Annual Biological Field Meeting of the Laurentian Mixed Forest / Great Lakes Coastal Biology Network, Green Point Nature Center at Shiawassee National Wildlife Refuge, Saginaw MI.
- Potter, B. A., and G. J. Soulliere. December 2008. **Upper Mississippi River and Great Lakes Region Joint Venture strategic plans for all-bird habitat conservation.** Poster at the 69th Midwest Fish and Wildlife Conference, Columbus, OH.
- Soulliere, G. S. September 2008. **Bird conservation planning in the Upper Mississippi River and Great Lakes Joint Venture Region.** Presentation to Great Lakes Basin Ecosystem Team. Brookfield Zoo, Chicago IL.
- Denton, J., C. Roy Nielsen, G. J. Soulliere, B. A. Potter. November 2008. **Current and projected nest site availability for cavity-nesting waterfowl in the Upper Mississippi River and Great Lakes Region.** Poster at the 15th annual meeting of The Wildlife Society, Miami FL.
- Soulliere, G. S. March 2008. **Bird conservation planning in the Upper Mississippi River and Great Lakes Joint Venture Region.** Presentation to Michigan Department of Natural Resources Wildlife Division Chief, Lansing MI.
- Soulliere, G. S., and B. A. Potter. March 2008. **Bird conservation planning in the Upper Mississippi River and Great Lakes Joint Venture Region.** Presentation to Illinois Chapter of The Wildlife Society, Peoria IL.
- Soulliere, G. S., and B. A. Potter. March 2008. **Wetland bird conservation targeting in Illinois based on 2007 Upper Mississippi River and Great Lakes Joint Venture Implementation Plan.** Presentation to Illinois Department of Natural Resources and Natural History Survey "Wetland Campaign" workgroup, Peoria IL.
- Soulliere, G. S., and B. A. Potter. December 2007. **All-bird conservation planning in the Upper Mississippi River and Great Lakes Joint Venture Region.** Symposium on "Conservation Design: A way to manage for all species," 68th Midwest Fish and Wildlife Conference, Madison WI.
- Soulliere, G. J. October 2007. **Regional waterfowl habitat planning.** Presentation at Minnesota Department of Natural Resources Wetland and Waterfowl Research Group Workshop. Bemidji MN.
- Potter, B. A., J. J. Rohweder, and W. E. Thogmartin. September 2007. **Planning at multiple spatial scales: translating regional population design into local management decisions.** Poster at the 14th annual meeting of The Wildlife Society, Tucson, AZ.
- Denton, J., C. Roy Nielsen, G. Soulliere, B. Potter. September 2007. **Current and projected nest site availability for cavity-nesting waterfowl in the Upper Mississippi River and Great Lakes Region.** Poster at the 14th annual meeting of The Wildlife Society, Tucson, AZ.
- Soulliere, G. J., and B. A. Potter. May 2007. **Bird conservation planning.** Upper Mississippi River and Great Lakes Region Joint Venture Management Board and Science Team Workshop, Grafton, IL.
- Soulliere, G. J. May 2007. **Joint Ventures and bird conservation planning.** Wisconsin Department of Natural Resources Wetland Training Workshop. Fond du Lac, WI.
- Potter, B. A. April 2007. **Upper Mississippi River and Great Lakes Region Joint Venture: tools for strategic habitat conservation.** Poster at the Workshop for USFWS Region 3 Project Leaders, Indianapolis, IN.

Evaluation Projects With Significant JV Funding and/or Science Staff Collaboration

2007-2008

Black Duck satellite radio (PTT) telemetry study: examining local and geographic habitat use patterns over the annual life cycle and connections among significant biomes (status – 2008 was first field season of 2-year project) *Principal Investigators (PI): Tina Yerkes (DU) and Jake Bowman (University of DE)*

Vital rates of breeding waterfowl in the boreal forest of the Great Lakes Region (status – 2008 was first field season of 3-year project) *PI: Charlotte Roy and Christine Sousa (MN DNR) and Jody Kennedy and Elizabeth Rave (Bemidji State University)*

Great Lakes colonial waterbird survey (status – 2008 was second field season of 4-year project) *PI: Francesca Cuthbert and Linda Wires (University of MN)*

Foraging ecology of fall migrating shorebirds in the Illinois River Valley (status – 2008 was last field season of 2-year project) *PI: Joshua Stafford (IL NHS)*

Updating the National Wetlands Inventory for the State of Ohio (status – 2008 was year two of 3-year project) *Ducks Unlimited and OH DNR*

Enhancing breeding waterfowl monitoring and landscape characterization through geo-referenced data collection in Wisconsin and Michigan (status – after 1-year delay, equipment purchased in 2008 and 2009 will be first field season of 3-year project) *PI: Ron Gatti (WI DNR), Dave Luukkonen (MI DNR), John Coluccy (Ducks Unlimited), and Greg Soulliere (UMRGL JV)*

Evaluating factors limiting blue-winged teal production and survival in the Great Lakes region (status – 2008 was third field season of 4-year project) *PI: Ron Gatti (WI DNR)*

Current and projected nest site availability for cavity nesting waterfowl in the upper Mississippi River and Great Lakes region (status – 2008 was last field season of 3-year project) *PI: Charlotte Roy and Eric Hellgren (Southern Illinois University)*

Translating regional population goals for bird species of concern into local habitat conservation objectives: overcoming the intervening impediments (status – 2008 was last year of 3-year project) *PI: Wayne Thogmartin (U.S. Geological Survey)*

Conservation planning tools for spring migration in the upper Mississippi River/ Great Lakes region: understanding habitat and nutrient requirements of spring staging waterfowl and shorebirds (status – 2008 was last year of 3-year project) *PI: Tina Yerkes and John Coluccy (Ducks Unlimited), Mike Eichholz (Southern Illinois University), and Bob Gates (Ohio State University)*

JV Science Office Goals and Future Direction

Near-term (<2 years)

- Strengthen relationships with science entities important to JV mission, and collaborate with partners to identify and initiate bird research and monitoring activities critical to regional bird conservation. Key science partners include members of the JV Science Team and the North American Waterfowl Management Plan Science Support Team (NSST).
- Promote use of JV planning tools, collect feedback regarding strengths and weaknesses of 2007 Implementation Plan, develop and refine GIS and other planning products useful to partners, and measure effectiveness of products to partners. Priority focus will be partner agencies and organizations serving on the JV Management Board.
- Address concerns regarding JV science foundation identified in the North American Waterfowl Management Plan 2006 assessment, and work toward comprehensive completion of science elements in the matrix of “Desired Characteristics of Joints Ventures.”
- Expand knowledge of bird biology and ecology, contemporary conservation practices, measuring landscape change, and the potential impacts of climate change on priority birds. New information will be used to develop and refine priority species accounts, bird habitat conservation objectives, planning documents, and habitat accomplishment reporting.

Long-term (>2 years)

- Identify and integrate regional bird conservation priorities with societal initiatives developed to counter environmental threats. A primary focus will be mitigation and adaptation to climate change.
- Establish JV partnership as a national leader in bird conservation by continually improving scientific foundation, efficiency, and effectiveness of conservation initiatives in the JV region. Strategic Habitat Conservation (SHC) via planning-implementing-evaluating will be central to improving JV conservation approaches over time.

For more information about the Joint Venture, visit our web site: www.UpperMissGreatLakesJV.org