



Refuge Biology Bulletin

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New Project Defines Salt Marsh Integrity

A new FWS/USGS Refuge Cooperative Research (RCRP) multi-refuge study to identify rapid assessment techniques for determining salt marsh integrity has been launched. At Rachel Carson NWR, the study took place at five marshes that were tidally restricted, unrestricted and ditched. The habitat and wildlife parameters were measured through avian surveys, vegetation surveys, groundwater wells/water level loggers and nekton sampling. The methods compared rapid and intensive assessment techniques for each parameter. As an example of the massive undertaking the study demanded, in one component of the vegetation analysis 431 transects were intensively surveyed for plant species and their collective % cover within the quadrat. USGS is complementing marsh-specific measures with landscape level analyses. Glenn Guntenspergen & Hilary Neckles are the USGS principal investigators. Susan Adamowicz through the R5 LMRD program oversaw and coordinated the efforts for all seven refuges participating in the study and was the FWS liaison to the USGS PIs. Contact: Susan Adamowicz

Mousam River Salt Marsh Restoration, Phase 2

The Mousam River salt marsh restoration project comprised of investigating the best way to restore tidal flow to a diked salt marsh. The first steps of this project were vegetation mapping accomplished by GPSing the entire marsh then ground truthing all 200+ unique vegetation polygons and determining plants species composition and percent cover within the polygons. The second component to the project consisted of water level logger deployment to measure the depth and extent of tidal flow behind the dike barrier. Currently Rachel Carson is in the permitting process with STANTEC to obtain the necessary state and federal permits to remove portions of the dike in order to restore tidal flow. Contact: Susan Adamowicz

Ditch Remediation Workshop

Ditch Remediation Workshop – The R5 LMRD program hosted a workshop attended by over 40 scientists and resource managers in May. The purpose of the workshop was to hold an open discussion regarding the desirability, feasibility and potential consequences of restoring ditched marshes. Results of the workshop were incorporated into a NAWCA-funded project that seeks to use innovative techniques at small experimental locations at both Rachel Carson and Parker River NWRs to restore ditched marshes to more natural hydrology and thereby enhance/restore natural habitat and ecosystem processes. Contact: Susan Adamowicz

"The primary goal of this project was to keep pepperweed out of Maine/Rachel Carson NWR."

Perennial Pepperweed Early Detection and Control

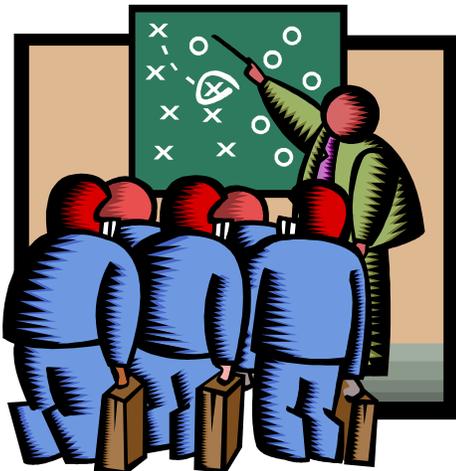
Perennial pepperweed is an aggressive non-native invasive of salt marsh habitats. It is currently found in many locations throughout the Great Marsh (MA) including Parker River NWR. Perennial pepperweed is spread by seed through waterways and has reached the Merrimac River. This project supported mapping, detection and removal efforts in Salisbury, MA –the northern limit of the major pepperweed expansion area. The primary goal of this project was to keep pepperweed out of Maine/Rachel Carson NWR. Other goals included not only direct control but also public education and empowerment. The work was contracted through MA Audubon and led by Liz Duff, a solid partner in pepperweed control in the Great Marsh. Contact Susan Adamowicz

Refuge Management Action Database (RMAD) Training

WebEX training for the Refuge Management Action Database will occur on the following date: February 18th, 2009 – 10 AM - NOON (Eastern)

Please contact Todd Sutherland by email if you wish to participate.

Management of Invasive Plants Training (Online)



New on-line training program about management of invasive plants on refuges. It was developed in collaboration with the Center for Invasive Plant Management in Bozeman, MT, specifically for the National Wildlife Refuge System. The training is available at: <http://www.fws.gov/invasives/staffTrainingModule>. Focusing on planning, assessing and specific IPM strategies, it can be used as an introduction for those just getting involved with invasive plant management or as a refresher for those already engaged in such management. The course can also be used to supplement the NCTC-based course, "Field Techniques for Invasive Plant Management," which was also specifically designed for the National Wildlife Refuge System. Please note that this new on-line training for staff is in addition to the already existing on-line training for volunteers working with invasive plants released last year (<http://www.fws.gov/invasives/volunteersTrainingModule>). The on-line training for volunteers is a recent recipient of an award from the National Association for Interpretation. Contact Michael_Lusk@fws.gov or Jenny_Ericson@fws.gov.

Prairie and Savanna LMRD Website

Website development continues for the R3 LMRD program. Look for it in Spring 2009! Contact: Pauline Drobney

Neal Smith Research Reporting Symposium

An annual Research Reporting Symposium is planned for early 2009 for Neal Smith NWR, the home base for the LMRD program in Region 3. Though a date has not yet been selected, it is planned for March. Results of nine research projects will be reported by the researchers with opportunity for discussion. All projects relate to tallgrass prairie or savanna ecological restoration at Neal Smith NWR. This year for the first time, we are opening the meeting to attendance by other FWS land managers. If you are interested, contact Pauline Drobney at Pauline_Drobney@fws.gov or call 515-994-3400.

Big River Network Update

* Dr. Micky Heitmeyer, with Greenbriar Wetland Services in Advance, Missouri, conducted a hydrogeomorphic evaluation of ecosystem restoration options for the Middle Mississippi River regional corridor covering 195 river miles.

* The Middle Mississippi River NWR initiated a Habitat Management Plan for all seven of its divisions. Middle Mississippi River is collaborating with the Mark Twain Complex office to gather remote data i.e. evaluation vegetation and historical maps, etc.

* The Illinois River Complex also initiated Habitat Management Planning for Chautauqua and Emiquon combining them into one HMP and can be used to manage on a landscape-scale.

* Several stations in the Big River network are collaborating with Melissa Meier of the USGS - Upper Midwest Environmental Sciences Center to analyze waterbird, shorebird and marsh bird data for the . Ms. Meier will be producing a report to the refuges on the effectiveness of the surveys for determining trends in populations and habitat use. For more information contact Melissa Meier at Melissa_Meier@usgs.gov.

* Squaw Creek, Swan Lake, Port Louisa, Minnesota Valley and Upper Mississippi River National Wildlife and Fish Refuges completed their first full year of a multi-refuge adaptive management study to examine the efficacy of different management actions on the reduction of reed canary grass. The research team will be meeting in La Crosse, WI, February 11 and 12 to discuss their progress and results to date and plan for the upcoming field season.

* Frank Durbian was the lead on the Northwest Missouri Avian Influenza zone monitoring. Participating stations included: Swan Lake, Squaw Creek, Clarence Cannon, and Big Muddy.

* Frank Durbian and Dr. Adrian Farmer (retired USGS) started work on a computer program that will allow biologists to calculate bird use days, and detection probabilities for making population estimates based on shorebird, or other bird count data, and associated detection data. Funding for the completion of the database was provided by the Regional Biology Program. This program should be available for use this spring.



*Middle
Mississippi River
NWR initiates
HMP*

Patoka River NWR Designated as Important Bird Area

In December 2008, Patoka River NWR was identified by the National Audubon Society's National Technical Committee as a Globally Significant IBA due to its populations of cerulean warblers and prothonotary warblers. This designation recognizes refuge for its protection of old growth bottomland forest and flooded swamps that support these bird species.

Region 3 Regional Biologist Updates

"In 2008, R3 biologists were authors on 17 peer-reviewed publications."

* Statistical Support for Stations - This is a reminder that the Regional Biologist's Office has a small contract with statisticians at Northern Prairies Wildlife Research Center and are willing to work with stations to get some of your data analyzed. Contact Pat Heglund if you have data that you would like analyzed (email: Patricia_Heglund@fws.gov; Phone: 608-781-6338).

* Network Leaders for 2009: Great Lakes – Michelle Vanderhaar; Prairie – Karen Viste-Sparkman; Eastern Broadleaf Forest – Jason Lewis; Big Rivers – Kevin Lowry

* Prairie network will be meeting the week of February 3 at St. Croix WMD.

* A data call for peer-reviewed publications for all refuge and private lands program biologists went out in November and we received several responses. In 2008, our biologists were either lead or co-authors on 17 peer-reviewed publications. You can view the list of titles at the BMT website. Great work everyone!

* FY09 Schedule:

* Big Stone – Biological Planning Preparation for CCP, January 26-30, 2008.

* Prairie Network meeting, February 3-5, 2009, St. Croix WMD.

* Multi-refuge Reed Canary Grass Study – consult on next steps, budget submission for FY09. Meeting scheduled in La Crosse, February 11-12, 2009.

* Crane Meadows – Biological Planning Preparation for CCP, exploration of hydrogeomorphic modeling, March 23 – 25, 2008

* Shiawasse NWR – Wildlife and Habitat consultation, June 1-3, 2009

* Ottawa – refuge visit, June 3 – 5, 2009

* Minnesota Valley – Wildlife and Habitat Review, July 13 – 17, 2009

* Morris Wetland Management District – Wildlife and Habitat Review, no date set

* Neal Smith – Biological Planning Preparation for CCP, no date set

* Eastern Broadleaf Forest Network meeting, October 6-7, 2009, Patoka River NWR.

* Biologist of the Year 2008 – We received three nominations for Biologist of the Year. See page 7 for announcement of winner!

* Network Proposals – We received three proposals from networks and are currently reviewing them. Networks will be notified by the end of January as to whether or not their proposal was approved for funding. Note that funding is conditional on the NWRS budget for FY09.

* Great Lakes Network met at Shiawasse NWR December 9-11, 2008. Highlights provided by network.

* Migratory Birds – Great Lakes Joint Venture Office will be sending out a short survey on wood duck nest box programs to all stations. Please respond as soon as it arrives via email.



Biologists Participate in TWS Annual Meeting

Refuge staff participated in the following events at the 2008 Annual Meeting of the Wildlife Society, held in Miami, FL.

*Symposium on Strategic Habitat Conservation

Drobney, P., W. Brininger, R.G. Corace, III, F. Durbian, J. Holler, R. King, M. McDowell, and K. Viste-Sparkman. 2008. Integrating ecosystems as a starting point into the strategic habitat conservation process.

Heglund, P.J., R. Fisher, and W. Thogmartin. 2008. Implication of strategic habitat conservation for U.S. Geological Survey.

*Symposium on Trapping in the 21st Century

Nelson, Eric. 2008. Management challenges presented by a regulated furbearer on the Upper Mississippi River National Wildlife and Fish Refuge.

*Panel Discussion on Adaptive Management on National Wildlife Refuges

Sara Vacek, John Braastad, Kate O'Brien, Socheata Lor, Sara Williams, and Melinda Knutson. Other participants were Eric Lonsdorf, Lincoln Park Zoo, and Clinton Moore,



Eastern Broadleaf Network Update

The Eastern Broadleaf Forest Network is working on continued progress toward the development of the Invasive Species Management strike team. Crab Orchard and Cypress Creek NWR are developing Integrated Pest Management Plans and the remaining refuges will be working to build their spatial data and species inventory needed to develop their own IPM plans. A Network proposal was submitted in December to obtain funding for temporary staffing to assist each refuge with these tasks. Next Network meeting will be October 6-7, 2009 at Patoka River NWR; agenda items will be cane restoration, moist soil management, and reforestation. The Network held a Giant Cane Restoration Workshop on Oct. 21st, 2008. It was attended by FWS field staff from R3 and R4 as well as a host of state and other federal agency representatives. Refuges interested in cane restoration are working together to obtain the needed bare rhizomes and greenhouse stock for spring plantings. In February, bare rhizomes will be dug and used for spring restoration efforts.



Prairie Network Update

The Prairie Biology Network will hold a workshop and meeting Feb. 3-5, 2009 in New Richmond, Wisconsin hosted by Jim Riemer of St. Croix WMD. We will receive a tour of some oak savanna restoration and biofuel sites, and share techniques and ideas. The rest of the meeting will include updates on multiple station studies and adaptive management consultations, discussions on HMP coordination, bringing in grant money, training opportunities, and wind power, among others.

Several Prairie Network stations are involved in multi-station research projects and adaptive management consultations. Minnesota WMDs are continuing to coordinate on Habitat Management Plans. The network submitted proposals to use network funding for a wetland ecology workshop and for hiring Minnesota Conservation Corps crews to do projects on several refuges. The network listserv has been a helpful way for us to share information on and discuss issues such as invasive species, wind power, wetlands ecology, and others.

Great Lakes Network Update

The Great Lakes Biological Network held its 3rd annual meeting at Shiawassee NWR on Dec. 9-11. Major topics included the regional fire program, implementation of the Great Lakes Joint Venture plans, forest insects and forest health, grant opportunities and partnerships. Field tours of Shiawassee NWR and private lands were highlighted by discussions on moist soil units, emergent marsh impoundments, croplands, green tree units, water levels management, deer population management, invasive species management, contaminant (dioxin) issues, forest health, deer management, invasive species, fish passage and dam removal. Seven projects were proposed for network funding with the group ultimately deciding on rapid ecological assessment of forests of the Great Lakes Biology Network which will be completed over the next several years. Michelle Vanderhaar was selected as the new network leader.



Land bird and Marsh bird Training

Online trainings are scheduled to review the land bird and the marsh bird standardized protocols. In addition, training sessions will be scheduled to learn about the databases associated with these protocols. If your station will be conducting bird monitoring this year, we strongly encourage you to participate in these sessions.

March 23: Marsh bird and Land bird protocol overview and updates
 1 p.m. Eastern (noon Central) – Marsh bird protocol
 2 p.m. Eastern (1 p.m. Central) – Land bird protocol

April 15: Marsh bird and Land bird database training
 10 a.m. Eastern (9 a.m. Central) – Marsh bird database
 11 a.m. Eastern (10 a.m. Central) – Land bird database

If you need help setting up a sampling design for bird surveys, please contact Melinda Knutson (land birds) or Soch Lor (marsh birds) as soon as possible. Contact Jennifer Casey (R5) or Todd Sutherland (R3) with questions about the databases.

A birder certification website is available to help you verify the bird identification skills of your bird observers. The website covers BCRs 12 and 23 now; the site will be expanding to include BCRs 13, 14, 22, and 30 in the near future. We encourage stations to take advantage of this resource. <http://www.uwgb.edu/birds/certification/index-1.htm>



Sara Vacek named Region 3 Biologist of the Year

Sara Vacek has been named Region 3's 2008 Refuge Biologist of the Year. Sara Vacek is an exemplary biologist for the U.S. Fish and Wildlife Service. Her leadership and dedication towards fish and wildlife conservation, her enthusiasm for applying science-based thinking to land management decisions, and her ability to effectively work with others to tackle complex problems set her apart and warrant her receiving the 2008 biologist of the year. Below are excerpts from her nominations:

"Among her many accomplishments in 2008 have been embracing new scientific approaches to resource management and guiding the participation of others. Her work supports refuge management that is grounded in thorough, objective science. The Adaptive Management Consultancy is a project designed to help refuge staff learn how to implement adaptive management through focused case studies. Sara proposed three case studies for Region 3 in 2007 and all three of her proposals were successful. She has since worked very hard to make the resulting collaborations successful by leading the planning and implementation teams, summarizing the workshops, and preparing the adaptive management implementation plans. Sara leads the Native Grassland project, and is a co-leader of the Excavate Sediment and Temporary Wetland projects."

"Sara has been a leader in a study of waterfowl nest success on Waterfowl Production Areas. She successfully secured funding for this work from the Prairie Pothole Joint Venture along with partners from the Delta Waterfowl Research Station and the University of Minnesota. This three year research project will examine the effects of woody cover on duck nest success on Waterfowl Production Areas in the best remaining habitat in the Morris Wetland Management District. Sara not only helped forge the partnership and concept, but also helped define the most appropriate research sites and trained the graduate student in waterfowl nest searching and monitoring techniques."

"Sara was responsible for getting the Prairie Network pointed in a direction that would lead to cooperation and collaboration among several stations in Region 3. Although this network has more members than any of the other networks, having more people tends to make people think they can sit back and let others do the work. Sara forced us to take action even when we were reluctant, and established the groundwork for a successful network."

This award recognizes leadership among peers and is one of our ways of highlighting the scientific excellence within the National Wildlife Refuge System. A formal recognition ceremony will take place later this winter in the Regional Office and again at the next Biologist's Workshop, tentatively scheduled for 2010. Many thanks to those who submitted nominations. Congratulations Sara!

Selection Panel:

Vickie Hirschboeck, Trempealeau NWR
 Dan Wood, Muscatatuck NWR
 Doug Helmers, Iowa Private Lands
 Kelly Srigley-Werner, Missouri Private Lands
 Socheata Lor, Regional Biology Office

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