

Biological Monitoring Team Bulletin. June 2008

This is an update on projects of the Biological Monitoring Team, FWS Refuges, Regions 3 and 5.

NEW BMT website URL: <http://www.fws.gov/bmt>

Please change your bookmarks! Check out the BMT's latest Accomplishments Report (Year in Review).

BMT Planning Meeting. The Biological Monitoring Team held a work planning meeting in Hadley, MA on 2-3 April 2008. Regional Chiefs Fuller & Leger, representatives of the Region 3 and Region 5 Leadership Teams, the Land Management Research and Demonstration Biologists, and representative Refuge Biologists from the two Regions were in attendance. Those in attendance provided feedback to the BMT staff on how their efforts are being received by the field and they helped develop a work plan for the future. There was general support for the projects the BMT is working on and ideas for new projects, but concern that many managers and biologists across the Regions are not aware of these efforts.

The BMT was encouraged to continue the BMT Bulletins and step up outreach efforts. Future projects will include planning coordinated waterbird monitoring across Regions 3, 4, & 5, follow-up with the existing adaptive management projects, and facilitating structured decision making workshops that address emerging resource management problems identified by the field. A Consultation Request Form is available for stations who wish to request consultation on difficult resource management problems. Internet training will continue & we'll begin an online Biological Seminar series with guest speakers. The Regions will continue to support cooperative USGS/FWS multi-refuge adaptive management projects; several Refuge Biologists have stepped up to coordinate these projects. A Fact Sheet summarizing the BMT projects over the last year was prepared for this meeting and is available on the BMT website. Minutes of the meeting and a file with field station recommendations and BMT responses are all available on the BMT website. Contact: Hal Laskowski



Thorny Resource Management Problems? Request a consultation! Fill out the Consultation Request Form and submit it to your Regional Refuge Biologist. They will help you set up a conference call, meeting, or workshop to meet your needs. They may identify other stations in the Region with similar needs. A form is now available for this purpose; download the Consultation Request Form from the BMT website.



BMT Briefs Directorate:

The BMT staff gave a presentation at the Service Directorate meeting in Newport, RI in April 2008. The presentation described how the BMT is identifying and addressing refuge monitoring needs, facilitating adaptive management, and working to share data with Partners. Also discussed was how the BMT is assisting to implement Strategic Habitat Conservation (SHC).

Our adaptive management projects and structured decision making workshops will be mentioned as part of a special section on Strategic Habitat Conservation to appear in an upcoming issue of the *Refuge Update*.



Training: Biological Seminar on the Ecology of Predator Control. On May 22, the first Biological Seminar (Webinar) was held by the Regional Biological Programs of Regions 3 and 5. Dr. Allen O'Connell of USGS Patuxent Wildlife Research Center conducted a presentation regarding the Ecology of Predator Control. The Webinars use on-line internet presentation software and

conference calling as a way to bring information to field stations without the time and monetary costs of travel. If you have seen a presentation that you think your fellow biologists and managers would be interested in, please contact Jennifer Casey.

Strategic Habitat Conservation:



Waterbird Management (waterfowl, shorebirds, wading birds). A Structured Decision-Making (SDM) workshop was held at NCTC in January to identify waterbird management decisions and information needs to support those decisions at the three landscape scales: Refuge, Region, and Flyway. Participants at the workshop included staff from R3, R4, and R5 refuges, Regional Offices, USGS, and Manomet Bird Observatory. A draft report is

presently being prepared from the workshop. This report will be circulated to refuges for comment and editing. Subsequently, small groups will be formed to develop appropriate monitoring protocols to measure waterbird habitat quality, numbers of waterbirds, effectiveness of wetland management actions. Contact: Hal Laskowski



Refuge management of wetland habitats for waterbirds. Soch Lor will be leading a team focused on Refuge-scale management of waterbirds, an effort that is coordinated with the waterbird project above. The team will meet for a Structured Decision Making (SDM) case study workshop at NCTC in July.

They will examine the best strategies for field stations to manage a wetland or complex of wetlands to accommodate multiple objectives. A team of station biologists, project leaders, and facilitators is being formed to work on the case study.

Adaptive Management Case Studies:



Workshops & Follow-up

Adaptive management workshops were held over the last year on six case studies submitted by Refuges. Five of the six working groups have submitted Adaptive Management Implementation Plans, funds were allocated to support those plans, and most of the groups are working on methods & database development this summer. Several contracts have been developed to support this work. Refuge staff and partners associated with all six cases have worked very hard to set up a framework for success that will help guide their future management over the next 6-10 years. Four Refuge staff will be representing the case studies in a Panel Discussion on Adaptive Management at the 2008 meeting of The Wildlife Society in Miami this November. See the BMT website for more information about these case studies. Contact: Melinda Knutson

Grassland Monitoring Database

A new database that supports grassland monitoring using the belt-transect protocol is nearly complete. This is one product of the Grassland adaptive management case study. A training session for users will take place on 8 July 2008 in central Minnesota. Contact: Todd Sutherland

National Wildlife Refuge Cooperative Research Program (RCRP)

Multi-refuge Adaptive Management Studies:

USGS Funds Three New Projects Under the RCRP. USGS has funded three new adaptive management research proposals under the RCRP. Salt marsh integrity, grassland management, and climate change were the three topics selected. Some refuges in R3 and R5 will be working with USGS scientists from Patuxent WRC and Northern Prairie WRC to address salt marsh integrity and grassland management on refuges starting this spring. Each project is funded for three years at about \$125K per year. Contact: Pat Heglund or Hal Laskowski



Salt Marsh Ecological Integrity Index. Refuges in R5, as well as R1 and R2, will be working with USGS staff to develop an ecological integrity index for salt marsh communities. The index will be used to evaluate the quality of refuge salt marshes and identify significant perturbations that impact the marshes and have an effect on the endemic wildlife that depend on these communities. The index will also be used to track changes as a result of refuge restoration activities or how global warming is changing the marshes. A structured decision making workshop was conducted by USGS in January 2008 to identify appropriate integrity metrics. In attendance were representatives from refuges in Regions 1, 2, and 5. Participating pilot refuges have hired summer biological technicians to assist with data collection and training sessions were conducted for refuge staff. Contacts: Susan Adamowicz, Janith Taylor, or Hal Laskowski

Invasive Plant Management in Native Prairies. An introductory workshop for this new RCRP adaptive management project is planned for 23-24 July 2008 in Jamestown, ND. Contact: Tom Buhl (tbuhl@usgs.gov)



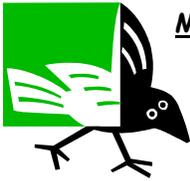
Cattail Fire Study. A productive conference call was held in March 2008 to discuss the past and future plans for the fire study. Steve Houdek was hired as the biological technician to conduct the field work this year, with short-term help from student intern, Kristin Shuda. Steve and Kristen will begin their field work in June with setting up plots in 3 wetlands that need to be burned this summer and fall at Sherburne and Horicon NWRs, and will collect 1-yr post-burn data from the 5 wetland units that were burned in the previous year. Contact: Soch Lor

Impoundment Management Study. Refuges within R3 and R5 have completed data collection for this 3 year study. Refuges are now submitting data to USGS Principal Investigators who are beginning data analysis. A publication plan outlining the various analyses from the study will be sent to all refuges. A workshop will be planned with refuge participants to share information learned and disseminate study results. Contact: Hal Laskowski



Reed Canary Grass Study. Five refuges in Region 3 and one refuge and two wetland districts in Region 6 are in the first full field season of a cooperative, 3-year, Reed Canary Grass (RCG) Adaptive Management study. Field work is the responsibility of the NWRS stations, while study design, data analysis, and

report writing go to USGS. Objectives are to test RCG control methods and determine response by native species, through natural regeneration and plantings, in meadow and floodplain forest study units, 2-8 acres in size. Spring application of the grass-specific herbicide Fusilade has been delayed on 9 of 11 units due to record flooding. RCG grew beyond optimal heights for treatment, so now we must hay those units and treat re-growth. With this adaptation, we stand to learn a great deal about RCG response to flooding, a credit to the significant cooperative effort expended by all participants. Mowing, of course, raises concerns about impacts to wildlife. Other study units will be treated with glyphosate. In eight forest units, the potential for tree regeneration from seed-fall is being studied by collecting seeds in net traps, deployed in a grid, 27 per unit. Flood waters covered these units also. Monitoring vegetation response requires detailed botanical work for which Pauline Drobney (Neal Smith) and BMT's Erin Hoy provide valuable assistance. Contact: eric_nelson@fws.gov



Marsh Bird Monitoring Tools:

Protocols. Soch Lor recently completed a draft of the Marsh Bird Inventory and Monitoring Plan on National Wildlife Refuges. Soch and other members of the Marsh Bird User Acceptance Team have provided comments and edits on the Marsh Bird Monitoring Protocol to Courtney Conway, but the final revisions have not been completed.

Database. The NWRS Marsh Bird Monitoring Database was released to the public last June and field stations with survey data should have entered their data into this database. Historical data previously sent to Courtney Conway were also imported into this new database by the Patuxent staff. Field stations with data should access the database and review their data for errors. Training for refuge staff to use the database will be conducted online late this summer. An announcement identifying training dates will be forthcoming to refuges. Contact: Soch Lor or Jennifer Casey

Training. Marsh Bird Monitoring training workshops were not held this year due to low demand, but these may resume in 2009. Contact: Soch Lor



Landbird Monitoring Tools:

Protocol. The landbird monitoring protocol is completed and is posted on the BMT website.

Knutson, M. G., N. P. Danz, T. W. Sutherland, and B. R. Gray. 2008. Landbird Monitoring Protocol for the U.S. Fish and Wildlife Service, Midwest and Northeast Regions, Version 1. Biological Monitoring Team Technical Report BMT-2008-01. U.S. Fish and Wildlife Service, La Crosse, WI. 25 pages + 11 Standard Operating Procedures. The new protocol should be considered when planning new inventory or monitoring surveys for birds during the breeding season. Contact: Melinda Knutson

Database. All stations monitoring landbirds with point counts should enter their data into the USGS Bird Point Count Database (<http://www.pwrc.usgs.gov/point/>) via the internet; the database does not accept Excel files. Contacts: Todd Sutherland (R3) or Jennifer Casey (R5)

Certification of Bird Observers. Dr. Bob Howe at the University of Wisconsin, Green Bay has developed a website to certify bird observers as skilled in bird identification (sight & sound). The U. S. Fish and Wildlife Service, Wisconsin DNR, and the National Park Service are collaborators with Dr. Howe. Bird observers wishing to survey birds in Bird Conservation Regions 12 & 23 (see map on website) can get certified now! Refuges and other agencies who want to hire certified observers can contact Dr. Howe to get a list of certified observers. View the prototype website at: <http://www.uwgb.edu/birds/certification/index-1.htm> Contact: Melinda Knutson



Refuge Publications:

These publications, authored by Refuge staff, have been added to the archive on the BMT website. Congratulations to staff with new publications! Send new publications authored by Refuge staff to Melinda Knutson; she'll add them to the archive.

- Durbian, F. E., R. S. King, T. Crabill, H. Lambert-Doherty, and R. A. Seigel. 2008. Massasauga home range patterns in the Midwest. *Journal of Wildlife Management* 72:754-759.
- Corace, I., R. G., K. P. Leister, and E. Brosnan. 2008. Restoration Notes: Efficacy of different glyphosate concentrations in managing glossy buckthorn (*Frangula alnus*) resprouts (Michigan). *Ecological Restoration* 26:111-113.
- McAuley, D. G., J. R. Longcore, D. A. Clugston, R. B. Allen, A. Weik, S. Williamson, J. Dunn, B. Palmer, K. Evans, W. Staats, G. F. Sepik, and W. Halteman. 2005. Effects of hunting on survival of American woodcock in the Northeast. *Journal of Wildlife Management* 69:1565-1577.
- McAuley, D. G., J. R. Longcore, and G. F. Sepik. 1990. Renesting by American Woodcocks (*Scolopax minor*) in Maine. *Auk* 107:407-410.
- Nagel, L. M., I. Corace, R. G., and A. J. Storer. 2008. An experimental approach to testing the efficacy of management treatments for glossy buckthorn at Seney National Wildlife Refuge, Upper Michigan. *Ecological Restoration* 26:136-142.

Resources:

FWS, NWRS Biological Web Site. (<https://intranet.fws.gov/region9/refuges/biologywebsite/>) The site is managed by the Regional Refuge Biologists and is a treasure-trove of useful information in support of the Biological Program on refuges. It should be the first point of inquiry for individuals seeking information related to the work and professional development of NWRS biologists. Whether you are a wildlife biologist, ecologist, botanist, or similar professional, the site provides tools and knowledge to meet your professional needs. The objectives of the site are to:

- *Provide ready access to relevant policies, technical documents, personnel, and databases
- *Provide tools and information
- *Provide information on training opportunities, upcoming workshops, professional meetings, and vacancies
- *Promote a sense of community among field biologists

Encyclopedia of Life (<http://eol.org>). The ambitious Encyclopedia of Life project published its first web pages on Earth's biological diversity on 26 February — one species per page. Born of a 2003 essay by biologist Edward O. Wilson and formally announced in May 2007, the website aims to

create an extensive, expert-created page for each of Earth's 1.8 million named species (see Nature 449, 23; 2007). Many of the world's foremost natural-history institutions are participating.

GAO. 2008. Natural Resource Management: Opportunities exist to enhance federal participation in collaborative efforts to reduce conflicts and improve natural resource conditions. Subcommittee on Public Lands and Forests, Committee on Energy and Natural Resources. Government Accounting Office, U.S. Senate, Washington, DC. (<http://www.gao.gov/new.items/d08262.pdf>)

The Northeast Coordinated Bird Monitoring Partnership (<http://www.nebirdmonitor.org/>) is a cooperative effort to align and strengthen bird monitoring programs in the Northeast. State, federal, and non-governmental organizations have teamed up to develop a coordinated approach to monitoring avian abundance, distribution, and demographics in the thirteen states of US Fish and Wildlife Service Region 5 (CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, and WV). This initiative will help build the fundamental basis for science-based bird conservation in the Northeast, while providing a model for coordinated monitoring in other regions.

Statistics.com (<http://www.statistics.com/ourcourses/>) Online professional development courses give you regular access to leading experts in statistics, in programs that fit your budget and schedule. You get access to a private discussion board with the instructor (often a leading expert and published author on the subject) for a period of 3-5 weeks. You should budget about 10-15 hours to work on each weekly lesson, arranged at your convenience (there are no set class hours). Most courses provide exercises with feedback, and many offer practical work with software. Several courses of study are available (e.g. biostatistics, environmental statistics, engineering statistics, etc.) in which you can earn a Program Certificate after completing the required courses.

Statistical / Modeling tools for design and analysis of conservation monitoring data. (<http://bio.research.ucsc.edu/people/doaklab/natconserv/purpose.html>) This website provides some simple Excel spreadsheet templates for analyzing monitoring data, especially, presence-absence data, counts of individuals, and species (community) data. The analyses focus on monitoring in a management context.

Cushman, S. A., K. S. McKelvey, C. H. Flather, and K. McGarigal. 2008. Do forest community types provide a sufficient basis to evaluate biological diversity? *Frontiers in Ecology and the Environment* 6:13-17.

McKelvey, K. S., K. B. Aubry, and M. K. Schwartz. 2008. Using anecdotal occurrence data for rare or elusive species: the illusion of reality and a call for evidentiary standards. *BioScience* 58:549-555.

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