



## ***What's in the Works – February 2008***

This monthly "Structured Decision Making - Community of Practice" newsletter is intended to help us stay informed of ongoing efforts to implement structured decision making and identify opportunities where we can work with and help each other on specific decision problems. Thanks in advance for your assistance and feedback to keep this information current and useful.

***Structured Decision Making Community of Practice (ongoing):*** A community of practice is a group of people who share a concern, set of problems, or passion about a topic, and who deepen their knowledge and expertise in this area interacting on an ongoing basis. If you are reading this, you are part of our community of practice in structured decision making. If you are interested in joining our SDM listserv or contributing to this newsletter please contact Donna Brewer at [donna\\_brewer@fws.gov](mailto:donna_brewer@fws.gov).

### **Structured Decision Making Training:**

**Introduction to Structured Decision Making CSP3171:** NEW! This course provides an introduction to structured decision making in the context of natural resource management problems. Progressing from the foundation in structured decision making that begins with knowledge of current practices, theory, and noteworthy case studies from FWS and USGS, this course provides hands-on experience using various decision tools including, decision trees, multiple objective ranking techniques, and expert panels. This course is highly recommended for coordinators of teams participating in the FWS/USGS Structured Decision Making workshops. The course is currently being designed for delivery March 10-14, 2008, at NCTC. The design team and instructors include Mike Runge and Sarah Converse (USGS), Jean Cochrane (IAP World Services), Jim Lyons, Jennifer Szymanski, Angela Matz, Steve Morey, Mary Parkin, Paul Barrett, and Donna Brewer (FWS). Additional sessions are scheduled for October 27-31, 2008; and September 24-28, 2009, at NCTC. Contact: Karene Motivans at 304-876-7458 or [karene\\_motivans@fws.gov](mailto:karene_motivans@fws.gov).

**Principles of Modeling for Conservation Planning and Analysis ECS3149:** This course focuses on the use of models in conservation planning and includes an excellent introduction to incorporating structured decision making techniques in a variety of simple natural resource forums. This course is highly recommended for anyone who will be participating in a structured decision making process

and/or is interested in an overview of what structuring decisions is all about. The course is taught by Dr. Tony Starfield (Univ. of MN-retired). Upcoming dates for this course are June 2-6, 2008; October 6-10, 2008; February 2-6, 2009; and May 18-22, 2009. All will be held at NCTC. Contact: Donna Brewer at 304-876-7451 or donna\_brewer@fws.gov.

**DOI Adaptive Management distance broadcasts:** Copies of all three broadcasts "Adaptive Management Overview and Orientation" (May 27, 2007), "Implementing Adaptive Management: set-up phase" (September 27, 2007), "Implementing Adaptive Management: iterative phase" (November 29, 2007), and downloads of the DOI technical guide are available on the DOI's Adaptive Management website at: <http://www.doi.gov/initiatives/AdaptiveManagement/training.html>. To request a hardcopy of the Technical Guide or a DVD of the broadcasts please contact Dave Lemarie at 304-876-7490 or dave\_lemarie@fws.gov.

## Structured Decision Making Workshops:

**Upcoming FWS/USGS Structured Decision Making Workshops:** NCTC has scheduled four FWS/USGS Structured Decision Making workshops for FY08 and FY09 (July 21-25, 2008; December 8-12, 2008; May 10-15, 2009; and August 10-14, 2009). All will be held at NCTC. The workshops are designed to develop applications of structured decision making for real, applied FWS problems that are local in scope, and in the process, increase capacity in structured decision making expertise within the FWS and USGS. The workshops provide participants with "practice" and skills development with structured approaches (or rapid prototypes) for addressing natural resources decisions in real-life situations. Participation in the workshop is by pre-selected teams of who represent the roles of coordinator, subject matter expert, technical expert, and/or observer - depending on the individual decision problem. Each team is assigned a SDM consultant (or coach) to assist them in defining their decision problem and in the development of their initial prototypes. If you are interested in proposing a decision problem for one of the workshops, please contact: Donna Brewer (FWS-NCTC) at 304-876-7451 or donna\_brewer@fws.gov or Mike Runge (USGS) at 301-497-5748 or michael\_runge@usgs.gov for additional information. We are currently requesting proposals for the summer workshop (July 21-25, 2008) at NCTC. **The deadline for proposals for the July workshop is March 14, 2008.**

**January 28 - February 1, 2008 Workshop** - Case study presentations from our winter 2008 workshop - January 28-February 1, 2008 at NCTC - included teams addressing decisions regarding flows from the Edwards Aquifer, creation of emergent sandbar habitat on the Missouri River, evaluation of monitoring objectives for wetland birds along the eastern U.S., and investigation of reintroduction of Steller's eiders. SDM Coaches included Mike Runge, Jim Nichols, and Bill Kendall (USGS), Drew Tyre (Univ. of Nebraska), Jim Lyons (FWS), Jean Cochrane (IAP World Services), and Eric Lonsdorf (Lincoln Park Zoo). All of the team presentations (problem statement, first prototype, and final presentation), as well as the plenary session presentations are available at: [http://training.fws.gov/branchsites/CSP/Resources/Decision\\_Analysis/SHC\\_NCTC\\_Jan\\_08/SHC\\_Jan\\_2008.htm](http://training.fws.gov/branchsites/CSP/Resources/Decision_Analysis/SHC_NCTC_Jan_08/SHC_Jan_2008.htm) The final team reports are in preparation and will be provided at this site when available. For additional information, please contact the team coordinators identified below:  
**Edwards Aquifer team:** Seven Threatened and Endangered Species of the Edwards Aquifer. Contact: Will Amy at 512.490.0057 x234 or will\_amy@fws.gov

Missouri River team: Creation of Emergent Sandbar Habitat on the Missouri River. Contact: Jane Ledwin at 573.234.2132 x 109 or jane\_ledwin@fws.gov

Waterbird Monitoring team: Development of Regional Waterbird Monitoring Program. Contact: Hal Laskowski at 302.684.4028 or Harold\_laskowski@fws.gov or John Stanton at 252.796.3004 or john\_stanton@fws.gov

Steller's Eider team: Recovery of Steller's Eider. Contact: Ted Swem at 907.456.0442 or ted\_swem@fws.gov or Angela Matz at 907.456.0442 or angela\_matz@fws.gov

**January 14-18, 2008 Workshop** - This special session was conducted in LaCrosse, WI, in partnership with Region 3 and focused on the exploration and development of a structured decision making (SDM) approach for three focal areas identified in R3's Strategic Habitat Conservation (SHC) framework. This workshop initiated the expansion of SHC discussions to on-the-ground practitioners using a structured approach and identified several start-up opportunities at pre-selected local and regional scales. Since this workshop had multiple objectives, the teams worked with both a SHC and SDM coach. SHC coaches included: Pat Heglund, Barb Hosler, and Tom Will. SDM coaches include Drs. Tony Starfield, Jean Cochrane, Eric Lonsdorf, and Jim Lyons. Copies of the team presentations are at:

[http://training.fws.gov/branchsites/CSP/Resources/Decision\\_Analysis/SHC\\_Region\\_3/SHC\\_January\\_2008.htm](http://training.fws.gov/branchsites/CSP/Resources/Decision_Analysis/SHC_Region_3/SHC_January_2008.htm)

The final team reports are in preparation and will be provided at this site when available. Contact: Donna Brewer/Pat Heglund.

**July 9-13, 2007 Workshop:** All four teams are actively continuing work on the structured processes developed during the workshop. For more information, please contact the Team Coordinator listed below. The final reports and powerpoint presentations are available at the following website:

[http://training.fws.gov/branchsites/CSP/Resources/Decision\\_Analysis/Rapid\\_Prototyping\\_Seminar.html](http://training.fws.gov/branchsites/CSP/Resources/Decision_Analysis/Rapid_Prototyping_Seminar.html)

Bull Trout team: Maximizing Bull Trout Conservation through Workload Allocation under Section 7 of the ESA. The model is being refined and a roll-out is anticipated for April 2008. Contact: Kevin Shelley at 360-753-4325 or Kevin\_shelley@fws.gov

Atlantic Salmon team: Choosing a Management Strategy and a Set of Actions for Atlantic Salmon Recovery. This team has continued with efforts to employ structured decision making and has additional meetings scheduled. Contact: Mary Parkin at 413-253-8617 or mary\_parkin@fws.gov or Melissa Laser at melissa.laser@maine.gov

Horseshoe crab/shorebird team: Application of Structured Decision Making to Multi-species Management of Horseshoe Crab and Shorebird Populations in Delaware Bay. This team is hoping to secure funding for a post-doc to continue the modeling efforts. Contact: Gregory Breese at 302-653-9152 x15 or gregory\_breese@fws.gov or Dave Smith (USGS) at 304-724-4467 or david\_r\_smith@usgs.gov

Mt. Graham red squirrel team: Development of a Transparent Decision-Making Process for Deriving Recovery Criteria for the Mt. Graham Red Squirrel. Contact: Marit Alanen at 520-670-6150 x234 or marit\_alanen@fws.gov.

The final reports and powerpoint presentations are available at the following website:

[http://training.fws.gov/branchsites/CSP/Resources/Decision\\_Analysis/Rapid\\_Prototyping\\_Seminar.html](http://training.fws.gov/branchsites/CSP/Resources/Decision_Analysis/Rapid_Prototyping_Seminar.html)

**March 26-30, 2007 Workshop:** Final presentations from the March 2007 workshop in LaCrosse, WI (which also included case studies focused on population and spatial modeling) are available at:

Final reports from these teams will be posted as soon as they are available. Updates on activities of the three teams will be posted in the next quarterly newsletter:

Migratory Bird team: Habitat limitations for migrating waterfowl in the Central/Mississippi Flyway. Contact: Jorge Coppen at 301-497-5792 or [jorge\\_coppen@fws.gov](mailto:jorge_coppen@fws.gov) or Pat Heglund (USGS) at 608-781-6338 or [patricia\\_heglund@usgs.gov](mailto:patricia_heglund@usgs.gov)

Upper Mississippi River team: Prioritization of Habitat Restoration Projects on the Upper Mississippi River System. Contact: Chuck Theiling at 309-794-5636 or [charles.h.theiling@usace.army.mil](mailto:charles.h.theiling@usace.army.mil) or Melinda Knutson at 607-781-6339 or [melinda\\_knutson@fws.gov](mailto:melinda_knutson@fws.gov)

Short-jawed cisco team: Status review of the shortjaw cisco. Contact: Laura Ragan at 612-713-5157 or [laura\\_ragan@fws.gov](mailto:laura_ragan@fws.gov) or Jennifer Syzmanski at 612-713-5342 or [jennifer\\_syzmanski@fws.gov](mailto:jennifer_syzmanski@fws.gov)

## Other Structured Decision Making activities:

***Adaptive Management Consultancy Workshops:*** Refuges have been working hard to organize workshops focused on specific management problems. These problems were submitted to the Regional Office last April; the problems were ranked, and workshops were planned for the highest priority issues. The workshops use a structured decision making process to set up a framework for adaptive management, including monitoring activities. Each workshop has a facilitator, a modeler, and an adaptive management expert (usually from USGS), as well as experts on the topic itself; 15-30 people, including refuge staff and invited experts have participated in each workshop.

Refuge staff who participated in the workshops will have the opportunity to share their thoughts and experiences with adaptive management during a Panel Discussion at the Wildlife Society Annual Meeting (November 2008 in Miami, FL). In addition, Melinda is writing a handbook about how to organize adaptive management workshops; the handbook will cover lessons learned and recommendations for how to improve the workshops in the future. The following summary is excerpted from the Biological Monitoring Team (BMT) Bulletin (January 2008) and includes brief descriptions of workshops that have been held or are scheduled. For additional information please contact Melinda Knutson at 608.781.6339 or [Melinda\\_Knutson@fws.gov](mailto:Melinda_Knutson@fws.gov) or visit the BMT website: [https://intranet.fws.gov/Region3/ScienceExcellenceandLandscapeConservation/bio\\_monitoring.html](https://intranet.fws.gov/Region3/ScienceExcellenceandLandscapeConservation/bio_monitoring.html)

**Fire & Salt Marsh Management; Blackwater NWR (R5); 23-24 Oct 2007 and 29-30 April 2008.** Dixie Birch and Laura Mitchell organized two workshops to set up a framework for monitoring different fire frequency treatments at Blackwater NWR. Salt marshes at the refuge have been managed with fire for decades and the refuge desires to evaluate the effects of different burn frequencies on vegetation, birds, and changes in open water and elevation. The first workshop established objectives, reviewed established treatments, and ranked monitoring metrics. The second workshop will complete details needed for implementing the framework.

**Grassland Management; Morris WMD (R3); 14-15 Nov 2007.** Sara Vacek & a planning team organized a grassland management workshop for participants from FWS Regions 3 & 6. The workshop built upon several years of pilot monitoring by several wetland management districts and the Nature Conservancy. The workshop focused on building an adaptive management framework for managing remnant prairies. After the workshop, USGS announced that Dr. Terry Shaffer & collaborators were awarded a research grant to work with refuges in R3 and R5 to adaptively manage grasslands. The workshop provided an opportunity for collaborators in this project to discuss grassland management and set the stage for a larger effort.

**Managing Islands for Seabird Nesting - Maine Coastal Is. NWR (R5); 27-28 Nov 2007.** Linda Welch & Sara Williams organized a workshop to help them manage islands for nesting seabirds. The workshop explored ways to improve vegetation monitoring on intensively managed islands and how management techniques they have learned could be applied to islands that are not currently under management. A follow-up meeting with USGS consultants Bill Kendall & Clint Moore, and Eric Lonsdorf (modeler with Lincoln Park Zoo) is planned in February to continue the conversation. Linda & Sara face a difficult problem because of the logistics of employing different management techniques on coastal islands. The refuge has a huge responsibility in managing islands where many rare seabirds nest in the face of severe predation pressure from gulls and competition for food.

**Shrubland Management; Parker River NWR (R5); 9-10 Jan 2008.** Nancy Pau, Kate O'Brien, Suzanne Paton, and Stephanie Koch organized a workshop to help them learn more about managing shrublands efficiently in the face of a host of invasive species. They were able to agree upon objectives, monitoring metrics, and management options, depending upon the initial state of the system (grass, shrub, or forest), with the help of their expert workshop participants.

**Sediment Excavation in Wetland Restoration; Rydell NWR (R3); 29-30 Jan 2008.** Lori Stevenson and a planning team have organized a workshop to set up an adaptive management framework for evaluating the use of sediment excavation as a tool for restoring wetlands.

**Managing Temporary Wetlands; Windom WMD (R3); 11-12 March 2008.** Mark Vaniman and a planning team are organizing a workshop to improve the management of temporary wetlands using targeted grazing, haying, fire, and other vegetation control methods on priority waterfowl production areas.

***Adaptive Management Conference Series:*** The USGS Adaptive Management Conference Series is an annual meeting of practitioners of formal technical methods for adaptive management. These highly technical meetings include a mix of talks on methods (like stochastic dynamic programming, Bayesian updating, etc.) and applications. The next meeting is scheduled for January 22-23, 2008 in St. Petersburg, Florida. Contact: Mike Runge

***Adaptive Resource Management for Threatened and Endangered Species Project:*** This joint USGS/FWS collaboration was undertaken to develop case studies of adaptive management for field-office level applications under the ESA. The final reports describing the frameworks designed by these teams are nearing completion and will be submitted for publication soon. Overall project contact: Mike Runge

Mead's Milkweed team. Title: Recovery of Mead's Milkweed (*Asclepias meadii*): an adaptive framework for decision making under uncertainty. Team members include Clint Moore (USGS), Kris Lah (FWS-R3), Lianne Ball (USGS), Chris Fonnesebeck (Florida Fish and Wildlife Conservation Commission), Christine Hunter (U. Alaska-Fairbanks), Paul McKenzie (FWS-R3), Michael Runge (USGS), Katriona Shea (Pennsylvania State Univ.), and Leslie TeWinkel (FWS-R3). Contact: Clint Moore at 706-542-1609 or cmoore@smokey.forestry.uga.edu.

Bull Trout team. Title: Adaptive management of bull trout populations in the Lemhi Basin. Team members include Jim Peterson (USGS), Carmen Thomas (FWS-R1), Ralph Thompson (FWS-R1), Damien Miller (U. Nebraska), Bill Kendall (USGS), Drew Tyre (Univ. of Nebraska), Tiffany Bogich (Penn State Univ.), Sarah Converse (USGS), Jeri Wood (FWS-R1), and Mike Runge (USGS). Contact: Jim Peterson at 706-542-1166 or peterson@smokey.forestry.uga.edu.

Florida scrub-jay team. Title: Development of an adaptive habitat-management strategy for Florida scrub-jays. Team members include Fred Johnson (USGS and FWS-R9), David Breriningger (Dynamac Corp.), Brean Duncan (Dynamac Corp.), Ken Williams (USGS), and Mike Runge (USGS). Contact: Fred Johnson at 352-392-5075 or fjohnson@usgs.gov.

**Upcoming Activities:** The following list summarizes activities which involve the application of structured decision making to natural resource issues. This list is provided for several reasons: 1) to encourage the exchange of information/experiences; 2) to begin to collect these experiences so we all can learn from them; and 3) to give you the opportunity to build your own expertise by participating and/or observing others in the process of structured decision making. Several of the activities listed below represent opportunities for qualified individuals to gain knowledge from experts by attending upcoming meetings/workshops. For example, your role could be as a design team member or instructor in one of our new courses, a teachers aide in one of Tony Starfield's Modeling courses, an apprentice to one of the consultants in a planned workshop, or an observer at someone else's workshop. Depending on the workshop and your own skills, your opportunity to participate could also involve taking on some of the facilitation or modeling - this is up to you and the individuals responsible for the individual workshop to agree on. If you are interested in any of the following opportunities please contact the individual directly.

I will be updating this list each month, so if you want to share information about an upcoming meeting, please let me know asap. If you want to also add a request for assistance, please include that information with your request.

March 10-14, 2008 = Introduction to Structured Decision Making (new course), NCTC. Contact: Karene Motivans

March 11-12, 2008 = Adaptive Management Consultancy - Windom NWR. Contact: Melinda Knutson.

April 7-11, 2008 = Structured Decision Making Workshop - USGS Patuxent Wildlife Research Center. Contact: Sarah Converse

April 29-30, 2008 = Adaptive Management Consultancy - Blackwater NWR. Contact: Melinda Knutson

June 2-6, 2008 = Principles of Modeling, NCTC. Contact: Donna Brewer

July 13-17, 2008 = Society of Conservation Biology annual meeting, Chattanooga, TN  
July 21-25, 2008 = FWS/USGS Structured Decision Making Workshop, NCTC. Contact: Donna Brewer or Mike Runge  
August 18-22, 2008 = Adaptive Management (new course), NCTC - Contact: Dave Lemarie  
October 6-10, 2008 = Principles of Modeling, NCTC - Contact: Donna Brewer  
October 27-31, 2008 = Introduction to Structured Decision Making, NCTC. Contact: Karene Motivans  
November 3-7, 2008 = The Wildlife Society annual meeting, Phoenix, AZ - special symposium on Adaptive Management  
December 8-12, 2008 = FWS/USGS Structured Decision Making Workshop, NCTC. Contact: Donna Brewer or Mike Runge

## Other Relevant training:

***FWS-USGS Conservation Science Web Conference Series:*** NEW!!! The FWS/NCTC and USGS/CoOp Units have recently developed a new conservation science web conference series to promote the exchange of scientific and technical information. The third seminar in this series is listed below. Participation in the live web conferences is limited to 20 participants so if you are interested in enrolling, seminar go to DOI Learn and submit your application for the Conservation Science Web Conference Series CSP3900. The Seminars will be interactive so each participant will have an opportunity to ask questions and provide comments. All of the web sessions will be recorded and available through NCTC's web library. Contact: Chris Horsch, Conservation Science and Policy Training 304/876-7445

March 20, 2008, 1:00-3:00pm ET - Instructor - Tom Edwards, CoOp Unit Leader at Utah State Univ - Topic - Species Distribution Models in Conservation - Part 2: Just how Useful are the Models we Build?

***New Reports:*** Devil's Hole Pupfish Rapid Prototyping, November 2007 - Paul Barrett (FWS), Jon Sjoberg and Sean Harris (Nevada Dept. of Wildlife), John Wullschleger and Mike Bower (NPS). Click here to download the report:

[http://training.fws.gov/branchsites/CSP/Resources/Decision\\_Analysis/List\\_Serve\\_Attachments\\_files/Final\\_DHP\\_Rapid\\_Prototype\\_Report\\_v2.pdf](http://training.fws.gov/branchsites/CSP/Resources/Decision_Analysis/List_Serve_Attachments_files/Final_DHP_Rapid_Prototype_Report_v2.pdf)

***Changes in Latitudes:*** Jean Cochrane has resigned her position with the FWS Endangered Species Office in Arlington, VA. She is currently contracting with the FWS and USGS on a variety of structured decision making projects. Jean can be reached at [jcochrane@boreal.org](mailto:jcochrane@boreal.org) or 218.387.3599.

***SDM Monthly Conference calls:*** We have resumed our monthly calls on the second thursday of each month at 1:00 Eastern. The dial-in number will be the same each month: 1-888-591-9790 password 766452. I'll send out a call for agenda items and a reminder a few days before each scheduled call. That being said, since the next call conflicts with the pilot of our new structured decision making course, so the next call will be the first Thursday in March instead = **March 6, 2008 at 1:00 EST.**

thanks everyone!

donna

Donna C. Brewer  
Curriculum Manager, Conservation Planning & Policy  
U.S. Fish & Wildlife Service  
National Conservation Training Center  
698 Conservation Way  
Shepherdstown, West Virginia 25443  
Phone: 304.876.7451  
Cell: 304.839.1285  
Fax: 304.876.7234