

Upper Mississippi River and Great Lakes Region Joint Venture Science Team Meeting Minutes (December 2008)

The JV Science Team met 17-18 December, following the 69th Midwest Fish and Wildlife Conference at the Hyatt Regency Hotel in Columbus OH. The Science Team consists of the JV Technical Committee, plus ad-hoc subcommittee members with bird conservation expertise. After a period of technical challenges with two laptop computers, a projector, and loading presentations, our planned 1:30 PM meeting began about 1:45 PM.

Technical Committee members present: Todd Bishop (IO DNR), John Castrale (IN DNR), John Coluccy (DU), Bob Gates (OSU), Ron Gatti (WI DNR), Greg Soulliere (FWS-JV), and Wayne Thogmartin (USGS). Members absent: Dave Ewert (TNC), Dan Holm (IL DNR), Dave Luukkonen (MI DNR), and Mike Roell (MO DNR).

Ad hoc members present: Brad Potter (FWS-JV) and Tom Will (FWS-MB). Members absent: Mike Eichholz (SIU), Melinda Knutson (FWS-Refuges), Steve Lewis (FWS-MB), Mike Monfils (MI NFI / MSU), Charlotte Roy (MN DNR), and Bob Russell (FWS-MB).

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In addition to the Science Team, we were joined by Katie Koch (FWS Region 3 Bird Monitoring Coordinator, Marquette MI), Robb Macleod (GIS Program Coordinator, Ducks Unlimited Great Lakes / Atlantic Office, Ann Arbor MI), and Bill Bartush (Wildlife Program Leader, U.S. Forest Service, Milwaukee WI). Jeff Lawrence, Minnesota DNR Wetland and Waterfowl Group Leader, Bemidji MN, joined us for the first couple hours of the meeting, before catching his flight home.

JV Implementation Plan “marketing,” was reviewed by Greg Soulliere. Since the 2007 Implementation Plan was completed JV staff members have visited many partner organizations, making presentations about how the plan was developed and how plan decision tools may assist state-scale planners and implementers in targeting bird conservation work. JV staff members have other presentations slated for this winter and spring. In addition, posters have also been developed for conferences and meetings of field biologists (list of presentation and poster events was provided).

Presentations Related to JV Evaluation

The JV has funded or collaborated on several research projects to help fill information gaps and test plan assumptions identified during Implementation Plan development. Updates on some of these projects were provided by meeting participants.

Spring migration energetic model (John Coluccy).—John reviewed a food energy model similar to the one used to develop habitat objectives for non-breeding waterfowl in the JV waterfowl strategy. The “TRUMET” system has been used since 1995. It has been

refined over the years, and now incorporates an “interval input” to account for changing bird abundance over the course of migration and winter periods. Using an estimated number of birds likely to be in an area during a given period (model inputs) will generate a more refined food energy requirement by species for the non-breeding seasons. In addition, users can build bird guilds (e.g., species with similar feeding ecology) with the model.

Discussion: Energetic modeling experts must better share information with the migration modeling experts as overlap may exist with work being conducted by the Habitat and Population Evaluation Team (HAPET) and Upper Midwest Environmental Sciences Center (UMESC).

Black Duck telemetry study (John Coluccy).—This project began during the winter of 2007-08. Study objectives were to explore linkages between breeding and wintering areas, plus collect data on migration timing, staging locations, and duration of stay at stopover sites. Nine radios were installed in OH, and several others at locations along the Atlantic Coast. Most OH birds traveled to Ontario to breed whereas East Coast birds migrated farther north into “core breeding range” in Quebec and the Maritimes. Some marked birds have been reported harvested by hunters, mostly in Canada. Transmitter attachments appear to be working well based on inspection of these birds. Researchers plan to attach 11 new transmitters in Ohio, and work will continue on the East Coast, with 50 black ducks total being marked this winter.

Evaluating limiting factors for Blue-winged Teal in BCR 23 (Ron Gatti).—Blue-winged teal (BWT) populations east of MN are in long-term decline and biologists do not understand what is limiting these populations. This study has three primary objectives, including testing management assumptions and refining the breeding season model in the JV Waterfowl Strategy. The project has been extremely challenging compared to similar projects with mallards. A primary difficulty has been BWT are not “hardy” (vs. mallards). Birds used for trapping often stop eating, lose weight, and ultimately starve during the trapping season. Researchers learned, however, to force-feed malnourished birds the human food supplement “Ensure,” resulting in quick weight gain. Disease from game farm stock used for trapping also was a problem early in the project.

Based on initial results from radio-marked birds, selection of BWT breeding sites was related largely to wetland abundance. In assessing grassland quantity needs, paired study areas were not dramatically different in landscape composition, with 5-15% grass cover being compared. Nest success was highest in “idle grass.” Due to the limited number of nests and broods with marked hens surviving, study results do not support strong statements about cover type influence on survival. Hens re-nested more than expected, and two of them re-nested twice. Early study challenges (decoy-hen starvation and disease) have been largely overcome this past year (year 3), and an additional year of funding (\$40,000) could substantially add to the data base for this unique study.

Discussion: the Technical Committee (TC) thought information collected so far was of great value and to end the project on the threshold of substantial additional data collection

would be a mistake. The TC recommended Ron apply for an additional year of funding with a new one-year flex-fund project proposal. *Note:* Of the \$120,000 requested for the initial 3-year study, only \$110,000 has been used, thus a \$40,000 application for 2010 will exceed the initial project request by only \$29,000.

Updating National Wetland Inventory in the Great Lake states (Robb Macleod).— NWI information is extremely important to wetland bird conservation modeling and planning in the JV region. Various planning initiatives in recent years revealed substantial wetland change in some areas from the 1970s when NWI was first generated. Ducks Unlimited (DU) is coordinating NWI updates in MI, OH, IN, and IL. They are also hoping to assist the WI DNR with an update. The original NWI was completed with only spring air photos. The current project includes both spring and summer photos to better assess wetland seasonality and more accurately identify wetland type. About 1% of wetlands will be field checked for accuracy. Other measures are being used to assure accuracy and consistency between photo interpreters. Some updated areas (e.g., northern OH) appear to have a tremendous number of new “wetlands,” but they are actually excavated ponds around homes. A county-level NWI update can be found at the DU website (<http://www.ducks.org/Conservation/GLARO/3752/GISNWIUpdate.html>); prediction for MI, OH, IN, and IL update completion is late 2009 or early 2010. *Note:* In a separate initiative, the state of IA has completed a similar NWI update.

*Monitoring for Conservation (Tom Will and Katie Koch).—*Our monitoring information is more “powerful” when survey protocol is similar across larger areas (via collaboration between agencies and organizations). Monitoring is an essential part of the conservation business model, the adaptive planning approach (SHC) to improving decision making. Moreover, monitoring may be the glue to help pull partners together to complete the SHC circle of plan-implement-monitor-adjust.

Katie plans to meet with bird conservation stakeholders to discuss key monitoring activities which ultimately will help target conservation efforts. She provided a presentation also given at the Midwest Conference on values of coordinated bird monitoring (CBM). CBM can help those conducting local surveys better understand their contribution at larger scales. Examples were provided of how separate monitoring projects were combined, resulting in greater efficiency and effectiveness. Katie and Tom discussed bringing partners within sub-regions of the Midwest together to discuss CBM. Meeting locations will be selected to reduce travel challenges for state-agency personnel, and JV staff will be invited to participate. Finally, Tom reviewed the Avian Knowledge Network, which provides a safe data storage location and various levels of data access and security for information sharing.

Discussion: The Prairie Pothole JV participated in a regional meeting between State Action Plan coordinators and JV partners. Results of the meeting were mixed, with some distrust of JV folks perhaps because of their long-term waterfowl focus. The Forest Service has several monitoring initiatives as well as an interest in being more active in JV science efforts

Action item: Greg will add Katie to the JV Science Team, assuring her input in JV science efforts and improved CBM information sharing.

Action item: Bill Bartush will provide Greg with the name of a Forest Service candidate to serve on the JV Science Team.

We adjourned for the day at 6:00 PM.

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Analyzing Regional Landscape Change

Brad Potter provided a review of efforts to assess landscape change, a top JV monitoring priority. Although JV Management Board members provide an annual partner accomplishment report, we have no concomitant measure of losses and poor understanding of net change in bird habitat quantity. Moreover, there are other factors influencing bird habitats, for example the juxtaposition of human-influence zones that potentially affect quality/use. The JV Science Office has been developing proposals to better assess landscape change, using various funding levels. One opportunity is a “piggy-back effort” with the Wetland Status and Trends (WST) program. By adding new plots to this existing survey within the JV region, WST may be able to provide statistically-sound measures of change in primary cover types at 5-year intervals. However, challenges include cross-referencing cover types between WST and bird habitat descriptions used in JV plans. Many are substantially different.

Brad also discussed his recent GIS assessment of existing vs. predicted area amounts of bird habitat by primary cover types. Based on habitat models developed for breeding focal species in the 2007 JV Implementation Plan, the estimated amount of available habitat is substantially different than predicted. For example, there appears to be far less habitat available than needed to accommodate current populations of some species based on plan model predictions. Discrepancies may be due to inaccuracy in population estimates, model inputs, spatial data, or some other aspect of the approach used to generate habitat objectives.

Discussion: NWI may be moving toward a status and trends sampling approach. Although WST may be a useful tool (index) in tracking change of primary cover types, bird conservationists also need complete and up-to-date NWI data for landscape planning. In fact, we need to remind FWS administrators of the importance of NWI to bird conservation planning. Threats to birds may also be tracked via measures of urban expansion and agricultural intensification. USDA / FSA have good geospatial data to assess annual changes in farmed land, but access may require person to person interaction. Other important sources of landscape change information include the Forest Inventory and Assessment (FIA, USDA- Forest Service) and the Natural Resources Inventory (NRI, USDA-Natural Resources Conservation Service). However, NRI cover type data appears to be partly digitized in some counties and incomplete in others.

Action item: Develop a recommendation letter for the JV Management Board to the FWS National Wetland Inventory program, addressing the value and need for a viable NWI program (assigned to Todd, Brad, Robb, Bill, and Greg).

Action item: Brad will work with the Science Team (mostly Wayne and Greg) to develop a brief report describing apparent discrepancies in habitat and population objectives (by bird group). In addition to sources of error, the account should review “what it means to be above or below habitat objectives to maintain desired populations.”

Discussion: Wayne is developing an optimization decision-support system, which may be used to partition the landscape in order to reach population objectives for priority birds by emphasizing management for a specific bird group where the land has “equivocal value.” In other words, the system can steer field biologists deciding how to manage individual landscapes while attempting to achieve regional bird population objectives for multiple species, collectively. In addition, the group discussed problems related to PIF landbird population estimates, a critical input in JV habitat planning. We discussed potential for transitioning from population goals based on current and past estimates, to using population trends and vital rates as a more realistic foundation for habitat objectives.

Prioritizing and Implementing JV Evaluation Needs

Valuable discussion about research projects and monitoring needs continued through the morning. Bob Gates reviewed scales of monitoring and how various types of monitoring may relate to adaptive management and strategic habitat conservation (SHC). There are three primary levels of monitoring: 1) continental or regional scale (high level) to assess population trends, 2) management-program assessment (mid level) to determine the influence of initiatives like the Conservation Reserve Program, and 3) evaluation monitoring (small scale) to determine vital rates, perhaps related to effectiveness of a local management practice. Ideally, CBM should help bridge the gap between the three scales, and “the spokes of the SHC wheel” may need to better reflect the different scales of monitoring. Adding Katie and Bill (or other Forest Service representative) to JV Science Team will aid in CBM and other evaluation-focused networking.

Tom Will reviewed potential approaches to implementing JV plans, including enhanced networks. He asked about the appropriate contacts at the sub-regional level to reach JV bird goals as well as evaluation priorities. In addition to JV Management Board members, State Action Plan coordinators may be key individuals within a JV network. We need to do a better job of including state wildlife action plan coordinators when sharing regional bird conservation information.

Action item: Greg will send the JV plans to the 10 JV State Action Plan coordinators with a note and invitation to receive additional information (Todd and Brad will review).

Several members of the Science Team thought we should continue planning for a spring meeting to concentrate on prioritization of evaluation needs. Additional topics might include landscape assessment, including change and cover type discrepancies, plus management decision optimization. We need a clear set of objectives for this meeting, plus a location where a majority of members might be able to attend. Attendance by state agency personnel will be especially difficult based on our discussion. There are two CBM sub-regional meetings planned for spring.

Action item: Greg will develop a draft agenda with meeting objectives, plus potential dates and locations. After receiving feedback from Science Team members, final decisions about a spring meeting will be determined.

JV Science Team meeting adjourned at 10:00 AM.

18 December, 10:15 – 12:30 PM JV Technical Committee

JV Technical Committee / Grant Proposal Review Meeting

The JV Office received 17 flex-fund grant applications that met criteria listed in the 2008-09 request for proposals (RFP). In mid November Technical Committee (TC) members were mailed the following: 1) hard copies of each flex-fund grant application, 2) a spreadsheet listing the titles, cost, and duration of each project, and 3) a copy of the 2008-09 flex fund RFP. TC members were asked to refer to the RFP for application criteria and then score each proposal high (1), medium (2), or low (3) for “Technical” (i.e., is proposal scientifically sound) and “Topic Value” (i.e., importance to a specific bird group or to overall JV goals). TC members were also sent an electronic copy of the spreadsheet and asked to fill-in their project scores and return the spreadsheet to Greg Soulliere by 8 December.

Individual scores, received from 10 of 11 members, were pooled to generate a mean “topic value score” for each project, which was used to rank proposals and identify a top tier of projects for discussion at the 18 December meeting. A mean “technical” score was also generated to help assure projects considered to be high value also were technically sound. Participants at the 18 December meeting (7 of 11 TC members) were informed of the approximate amount of JV funding likely to be available (~\$50,000). After extensive discussion by the committee, a final ranking of the top four projects was completed (see shaded portion of attached spreadsheet).

TC discussion highlights included: 1) The one-page FWS refuge proposals simply lack adequate information to compete with detailed proposals in our review system. They should no longer be accepted or authors should be allowed to follow RFP guidelines, submitting proposals with “a detailed scope of work.” 2) Outreach proposals (i.e., *DU/MSU Wetland DVD*) are difficult to score against evaluation proposals, particularly considering wording in the RFP suggests they are secondary in priority (i.e., “Proposals related to ... outreach ... will also be considered.”). 3) We were not sure about the

amount of flex-funding being requested for the *Mississippi River lesser scaup migration and habitat use* study, but the group agreed (like last year) the study is valuable and technically sound. The JV should try to support it with some level of financial assistance. 4) Although the *Foraging thresholds of spring-migrating ducks* proposal initially ranked above the *Upper Mississippi River landbird migration* study (i.e., pooled TC scores), the group thought perhaps we should elevate the landbird research project considering the two highest ranked proposals focus on waterfowl. In addition, there were technical questions about the foraging threshold study we could not answer from the information provided; discussion with the author and resubmission could improve the proposal and ultimately the project.

Using information provided, the estimated total 2009 cost to the JV for the top three projects was \$60,000, and the total for the top four projects was \$81,000. This information will be submitted to Barb Pardo who will collaborate with coordinators of other funding sources (e.g., FWS Non-game Bird Fund) to support as many of these projects as feasible.

The JV Technical Committee meeting was adjourned at 12:30 PM.