

**Understanding the ecological and social constraints to achieving sustainable fisheries
resource policy and management (NC1189)**

Research Team Meeting

Wednesday, August 20, 2014, 1:30-3:30pm

American Fisheries Society Annual Meeting; Quebec City, Canada

In Attendance

Buhler, Doug (buhler@anr.msu.edu)- Michigan State University

Kyle Hartman (hartman@wvu.edu)- West Virginia University

Dana Infante (infanted@anr.msu.edu)- Michigan State University

Joe Nohner (johner@msu.edu)- Michigan State University

William Taylor (taylorw@msu.edu)- Michigan State University

Barbara Knuth (barbara.knuth@cornell.edu)- Cornell University

Tracy Kolb (Kolbt@michigan.gov)- Michigan Department of Natural Resources

Action Items Resulting

- The team agreed upon a refined research program for the next five-year multistate cycle focusing on a spatial, socioeconomic analysis of fisheries production across multiple states. A one-page summary of project goals, objectives, and strategies should be drafted and reviewed by the team.
- Barb Knuth will provide Dana Infante with spatial angler survey data for New York state in order to begin a pilot-level spatial assessment of interactions between socioeconomic factors and fisheries.
- Dana Infante will input New York angler survey data into a GIS system and conduct an exploratory analysis of the data alongside other biological and socioeconomic data already compiled by her lab in support of the pilot study described above.
- Those wishing to participate in the next multistate proposal should email Joe Nohner (johner@msu.edu) to express interest and a brief statement as to what their role would be.
- The next multistate meeting will be a “stand-alone” meeting to focus our efforts on the development and implementation of our next more synthetic proposal related to inland fisheries sustainability.
- Joe Nohner will draft and submit the SAES-422 report after review and comment by the team to the Michigan State University Agricultural Experiment Station Administrative Advisor, Doug Buhler through the NIMSS system by October 19.

Minutes

Doug Buhler: Project Deliverables and Guidelines

- Administrative Advisor, Dr. Doug Buhler, Director of the AgBioResearch Station at Michigan State University, provided a history of the project and the general objectives of the USDA multistate program. The major strength of the program is the opportunity to bring together investigators from multiple disciplines and regions to produce research that might not otherwise occur without the synergies that a multistate project should provide investigators.
- Doug reminded us that the deadline to apply for renewal is approaching, so the team will need to determine who will participate in the next project and proposal.
- Doug suggested that we schedule a stand-alone meeting as opposed to meeting in conjunction with another event, in order to maintain the focus and energy of the team on the updated proposal.
- Successful proposals have clearly defined objectives, have the potential to bring in external funding, and have a team of researchers who wish to work together and have both the appropriate skills and commitment to follow through.

Updates from individual investigators

- The team discussed potential research objectives and strategies for the next proposal, and decided to pursue a spatial, socioeconomic analysis of fisheries production across multiple states.
- Potential funding sources include the GLRI (Great Lakes Restoration Initiative), American Sportfishing Association, National Fish Habitat Partnership, and the National Needs Program (Association of Fish & Wildlife).
- The team discussed the availability and utility of various socioeconomic data sources across multiple states. Such information could improve fisheries management by providing new knowledge of and explanation for spatial trends in fisheries participation and production using a big data approach.
- Tracy Kolb, Michigan DNR, shared that the Michigan DNR conducts extensive creel surveys at Great Lakes boat launches and limited creel sampling on inland waters. Across most Upper Midwest states, inland creel data are more commonly collected as part of one-off surveys focused on a particular local issue and standardized and coordinated creel sampling is limited to Great Lakes sites.
- Statewide angler surveys provide a much larger, standardized dataset of the public's participation in fishing and the production of fisheries, which could be used to conduct a socioeconomic analysis of fisheries and improve fisheries management. Barb Knuth, Cornell University, oversees the analysis of New York State's angler survey data and recommended it as the most robust angler dataset in that state.
- New York is similar to other states, where universities plan, execute, and analyze angler surveys. This means that other academics may have access to similar

databases, and that there may be the ability to standardize the questions on these surveys by collaborating with state, tribal and federal agencies. Angler diaries may provide another opportunity for spatial data collection. Michigan DNR's statewide angler survey data are down to water body, while Indiana doesn't collected data at this scale. Current standardized angler surveys are spatially coarse, but it could be possible to design a survey targeting specific water bodies or river stretches.

- One potential objective for this group might be to identify a set of standards for angler surveys that facilitate interstate analyses of the socioeconomic factors that drive or are influenced by fisheries production. This analysis could lead to better fisheries management, outreach, and participation in recreational fisheries.
- We could connect this spatial, socioeconomic analysis of fisheries production to land cover or climate change to determine the socioeconomic impacts of these ecosystem changes. These results could provide for better fisheries management as the ecosystems in which fish live are affected by land use and climate change. Potential questions could include, "How will fisheries change in the future?"; "What fisheries would be targeted?"; and "How might catch limits be influenced?"
- Dana Infante, Michigan State University, recommended a pilot-level assessment of the relationship between socioeconomic factors and fisheries production on a small number of states followed by a larger data collection effort. The group supported this approach, and agreed that Dana Infante and Barb Knuth should collaborate to share data for New York State, and that Dana Infante should produce a pilot-level analysis of the relationship between socioeconomic factors and fisheries production for that state. The group agreed that this angler survey approach, whether it be creating a set of standards or conducting our own analysis, would be good direction for the team to pursue in the proposal for the next multistate grant. This approach would provide better information for fisheries managers in order to manage sustainable fisheries, improve outreach and participation in fisheries, and adapt to the impacts of changing landscapes and climate.
- Doug Buhler, Administrative Advisor for this project, was supportive of this approach.
- The group discussed sending out surveys of angler participation, catch, and demographics for streams, inland, and Great Lakes and recommended that angler surveys address all fishable water bodies. Our multistate research team is ideal for this research, as members have contacts in state, tribal, and federal fisheries management agencies as well as with academic and government researchers. The team will leverage this unique network to accomplish the research goals in multiple states and regions. The group decided that in order to go forward with the project, a one-page summary should be developed that could be circulated when discussing the project with agency or academic partners. This one page summary will be completed by those members

expressing a desire to participate in the next proposed multistate research project. It will describe a spatial, socioeconomic analysis of fisheries in the face of changing land cover or climate. These results could provide for better fisheries management as the ecosystems in which fish live are affected by land use and climate change.

Appendix 1: Important Dates for Multistate Project NC1189

Date	Deliverable
October 19, 2014	Annual Report (SAES-422) due
September 15, 2015	Request to begin proposal for 2016-2021 Multistate Project
October 15, 2015	Proposed project objectives due
November 15, 2015	Participants submit App. E forms
December 1, 2015	Complete project proposal due
March/April, 2016	Project review, proposal decisions, and requested revisions sent out
September 30, 2016	Current Multistate Project NC1189 expires
March 31, 2016	Termination reports for expired projects due