

Meeting Minutes

Coordinating Committee Meeting Pennsylvania Cooperative Fish and Wildlife Research Unit

July 24, 2013

9:30 AM

To be held in Room 217 of the Forest Resources Building

Chairman: Mike Tome, USGS

- * Mr. Calvin DuBrock, Director, Bureau of Wildlife Mgmt., Pa. Game Commission
- * Mr. Leroy Young, Director, Bureau of Fisheries, Pa. Fish & Boat Commission
- * Dr. Mike Messina, Head, Department of Ecosystem Science and Management, PSU
- * Dr. Michael Tome, Cooperative Research Units Eastern Supervisor, USGS
- * Dr. Michael Millard, U.S. Fish and Wildlife Service

Dr. Duane Diefenbach, Unit Leader, PACFWRU

Dr. Tyler Wagner, Assistant Unit Leader, PACFWRU

Dr. W. David Walter, Assistant Unit Leader, PACFWRU

Ms. Lora Zimmerman, U.S Fish and Wildlife Service

Dr. David Miller, Pennsylvania State University

[* Coordinating Committee Members]

1. Minutes of meeting from June 19, 2012 –approved

2. Proposed Budget – approved

3. Completed Projects (Summaries in Appendix A; yellow pages)

3.1. Diefenbach

3.1.1. Using auxiliary known-fate data to improve harvest estimates from tag-recovery models

3.1.2. Habitat management practices on reclaimed surface mines to benefit grassland birds

3.2. Wagner

3.2.1. Distribution of PCB congeners in Pennsylvania streams and fish: implications for risk assessment and fish health

3.2.2. Comparative energetics of lake trout morphotypes

4. New & Continuing Projects (*Requires approval by Committee; See Appendix B)

4.1. Diefenbach

4.1.1. Influences on the timing of denning in female black bears and its effect on harvest rates and estimates of population size.

4.1.2. Dispersal of black bears in Pennsylvania

4.1.3. Dispersal of female white-tailed deer in Pennsylvania

4.1.4. Harvest and survival rates of hen wild turkeys in Pennsylvania

4.1.5. Genetics of an insular population of bobcats and coyotes

- 4.1.6. Developing an adaptive management approach for meeting deer and forest management objectives
- 4.1.7. Allegheny Woodrat: Identifying Strategies to Conserve a Declining Species
- 4.1.8. *Using North American Breeding Bird Survey data to evaluate potential consequences of energy development and other land use changes on bird populations in the northeast Appalachian region
- 4.1.9. *Deer abundance and its relationship to factors that affect forest vegetation conditions
- 4.1.10. *Fall Harvest and Annual Survival Rates of Female Eastern Wild Turkeys in New York

4.2. Wagner

- 4.2.1. Seasonal movement patterns and habitat use of brook trout and brown trout in north central Pennsylvania
- 4.2.2. Habitat use, movement and genetic composition of lake trout in the Niagara River and Niagara Bar
- 4.2.3. Managing the nations fish habitat at multiple spatial scales in a rapidly changing climate
- 4.2.4. Fish community assessment in the Eastern Rivers and Mountains Network and integration with existing monitoring data
- 4.2.5. Modeling species response to environmental change: development of integrated, scalable Bayesian models of population persistence
- 4.2.6. Characterization of spatial and temporal variability in fishes in response to climate change
- 4.2.7. *A decision support mapper for conserving stream fish habitats of the NE CSC region
- 4.2.8. *Linking fish health, contaminants, and population dynamics of smallmouth bass populations in the Susquehanna River, Pennsylvania
- 4.2.9. *Transboundary management and conservation: linking large-scale dynamics to ecological monitoring and management

4.3. Walter

- 4.3.1. Linking bovine tuberculosis on cattle farms in Michigan to environmental variables using Hierarchical Bayesian analysis
- 4.3.2. Developing an adaptive management approach for potential surveillance and spread of chronic wasting disease in white-tailed deer in Pennsylvania
- 4.3.3. Surveillance and monitoring of river otter populations in Pennsylvania
- 4.3.4. *Spatial analysis of large mammals to assess harvest vulnerability in relation to landowner distribution

5. Proposed Projects – to be presented at meeting

- 5.1. Structured Decision Making for Key Deer Management and Recovery – Diefenbach and Wagner
- 5.2. Snowshoe Hare Habitat Relationships in Response to Northern Forest Management in Pennsylvania – Diefenbach
- 5.3. Assessing gene flow and relatedness of white-tailed deer from surveillance samples to understand potential for spread of chronic wasting disease in the northeast – Walter

6. New (noted by asterisk) and Proposed Projects – approved

7. Roster of Current Graduate Students and Post-Doctoral Researchers

7.1. Diefenbach

- 7.1.1. Danielle Begley – PhD Wildlife
- 7.1.2. Wendy Vreeland – MS Wildlife
- 7.1.3. Clayton Lutz – MS Wildlife
- 7.1.4. William Kanapaux – Post-doctoral research scientist
- 7.1.5. Jason Hill – Post-doctoral research scientist
- 7.1.6. Glenn Stauffer – Post-doctoral research scientist

7.2. Wagner

- 7.2.1. Tyrell Deweber – PhD Fisheries
- 7.2.2. Megan Kepler – PhD Ecology
- 7.2.3. Evan Faulk – MS Fisheries
- 7.2.4. Kelley Salvesen – MS Fisheries
- 7.2.5. Lori Smith – MS Fisheries
- 7.2.6. Steve Midway – Post-doctoral research scientist

7.3. Walter

- 7.3.1. Tyler Evans - MS Wildlife
- 7.3.2. Nick Forman - MS Wildlife
- 7.3.3. Charles Crawford - MS Wildlife

8. Service on Graduate Committees (other than advisees)

8.1. Diefenbach

- 8.1.1. G. Stokke, MS Wildlife and Fisheries Science
- 8.1.2. A. Weber, MS Wildlife and Fisheries Science
- 8.1.3. E. Barton, MS Wildlife and Fisheries Science
- 8.1.4. C. Crawford, MS Wildlife and Fisheries Science
- 8.1.5. T. Evans, MS Wildlife and Fisheries Science
- 8.1.6. N. Forman, MS Wildlife and Fisheries Science

8.2. Wagner

- 8.2.1. Jeff Kirby, PhD Ecology
- 8.2.2. Emi Fergus, PhD Fisheries and Wildlife (Michigan State University)
- 8.2.3. Richard Alexander, PhD Forestry
- 8.2.4. Didem Ikis, PhD Ecology
- 8.2.5. Krittika Petprakob, PhD Ecology
- 8.2.6. Brooks Fost, PhD Wildlife and Fisheries
- 8.2.7. Laura Madden, MS Wildlife and Fisheries
- 8.2.8. Brenden Reed, MS Forestry

8.3. Walter

- 8.3.1. Tyrell Deweber – PhD Fisheries
- 8.3.2. Nathan Fronk, MS Wildlife
- 8.3.3. Lori Smith, MS Fisheries

9. Courses and Workshops Taught by Unit Staff

9.1. Diefenbach

- 9.1.1. Structured Decision Making and Adaptive Management of Natural Resources, fall 2012 (with Tyler Wagner)
- 9.1.2. Advances in Ecology, fall 2012
- 9.1.3. WFS 447 Wildlife Management, fall 2012 (with Margaret Brittingham)

9.2. Wagner

- 9.2.1. Independent Study: Occupancy modeling, spring 2013

- 9.2.2. Structured Decision Making and Adaptive Management of Natural Resources, fall 2012 (with Duane Diefenbach)
- 9.2.3. Advances in Ecology, fall 2012
- 9.2.4. Introduction to Multilevel Models and their Applications in Forest, Fish, and Wildlife Management, 27-28 September 2012
- 9.2.5. Introduction to hierarchical Bayesian modeling using R and JAGS, 17-18 June 2013
- 9.3. Walter
 - 9.3.1. Applied Spatial Ecology, spring 2013

10. Comments from Cooperators

Dr. Michael Messina, Department of Ecosystem Science and Management

This is the first coordinating committee meeting with the new Department. The new Department gained 9 soil scientists and a plant ecologist but the Wood Products degree moved to Agricultural and Biological Engineering. The focus of new Department is forestry, wildlife and fisheries, soils, and water. The WFS program undergraduate enrollment declined slightly this year (from 201 to 160 students) but still makes up 2/3 of student body. The WFS program is largest program in students but has smallest faculty. Over the past year, the department has lost four faculty members and two instructors who have been replaced with two faculty members and a contract instructor. A search for a new dean failed recently but the process continues.

Mr. Calvin W. DuBrock, Pennsylvania Game Commission

The executive director retires January 17, 2014. There have been two recent Commissioner appointments to the board. The Bureau of Wildlife Management hired Jeremy Banfield as elk biologist in May and Walt Cottrell is retiring as veterinarian in September. The agency is pleased that Joshua Johnson was provided adjunct appointment in the department. The agency is financially in good condition primarily due to Marcellus gas royalties and Pitman-Robertson funding. The annual budget is about \$100 million. The bureau is hiring 3 limited-term (3 years) positions in small game, migratory game birds, and mammal atlas, and the bureau is revising minimum education and training requirements for wildlife biologists 1, 2, and 3, wildlife specialists, and wildlife supervisors. I may be retired before the next Coordinating Committee meeting.

The agency is working on management plans for bobcat, river otter, peregrine falcon, bald eagle, and Allegheny woodrat. These plans will drive budgets and research directions for these species. This year is the 30th anniversary of the bald eagle restoration program in Pennsylvania and state de-listing of the species will be proposed this fall. This year is the 100th anniversary of elk restoration in Pennsylvania and the hunting license. Current issues facing the agency include chronic wasting disease, feral swine (the legislature has removed authority from the agency for swine behind fences), and petitioning for listing several bat species (related to white-nose syndrome) has created a political backlash.

Mr. Leroy Young, Pennsylvania Fish and Boat Commission

The agency has a \$45 million annual budget and a \$9 million pension shortfall. Two hatcheries will not be closed but budget shortfall must still be addressed. A gas tax would have helped the agency but legislation was not passed. The Legislative Budget and Finance Committee is looking at a PGC and PFBC merger and a merger of PGC, PFBC, and DCNR law enforcement. Fishing

license sales have declined about 0.5% over last year. A youth fishing mentoring program will go statewide next year.

The agency's strategic plan is being revised as a 3-year plan. Regulations for boating and fishing are under review for simplification. A catfish management plan will be released for public comment soon. Shad restoration efforts, especially on the Lehigh River, indicate dam removal is the only effective action. Smallmouth bass on the Susquehanna River is a big issue for the agency. Unassessed waters need much attention and fortunately the fees from Marcellus gas drilling can be used for this activity. David Lieb is trying to get Commissioners to institute a ban on using crayfish as bait to slow the spread of invasive species. Asian carp continue to move up the Ohio River and PFBC is working with surrounding states to keep them out of Pennsylvania primarily by trying to use commercial fishing to reduce numbers and use Judas fish (radio-transmitted fish) to locate other individuals. Unsafe dams are an issue for the agency because the infrastructure needs are too expensive.

Dr. Michael Tome, U.S. Geological Survey, Cooperative Research Units

Sequestration is costing agency lots of personnel time and create inefficiencies. The retirement of Ken Williams (Chief, Cooperative Research Units) has not been filled and do not know when that may occur. The FY2014 budget may be based on sequestration, not the FY2013 budget. If so, filling vacancies may be difficult because we are under a hiring freeze.

Dr. Michael Millard and Lora Zimmerman, U.S. Fish and Wildlife Service

The USFWS is in the same budget situation as USGS with sequestration. The local Ecological Services office has experienced a lot of retirements and loss of staff and there has been no backfilling of positions. Hiring practices in the agency are changing with few positions and greater competition for positions. Landscape Conservation Cooperatives may change the scale at which resource protection issues are addressed (i.e., provide consistency across political or agency boundaries). The agency continues to try to keep species off the T&E list. Migratory fish are a priority and the USFWS is involved in relicensing dams on the Susquehanna River. Gas and wind development is a huge issue in Pennsylvania and impacts related to habitat and wastewater treatment. Energy development will become more important as the Utica shale reserves are tapped and could occur in northwestern Pennsylvania and New York.

11. Comments from Guests – none

12. Adjourn

13. An Executive Session of the Coordinating Committee followed immediately after adjournment



Attendees of the Coordinating Committee meeting of the Pennsylvania Cooperative Fish and Wildlife Research Unit, July 24, 2013. This year was the 75th anniversary of the research unit at Penn State University, 1938-2013

Front row (left to right):

Leroy Young, Pennsylvania Fish and Boat Commission
W. David Walter, Assistant Unit Leader – Wildlife
Tyler Wagner, Assistant Unit Leader – Fisheries
Michael G. Messina, Department Head, Ecosystem Science and Management
Calvin W. DuBrock, Pennsylvania Game Commission
Michael Millard, U.S. Fish and Wildlife Service
Lora Zimmerman, U.S. Fish and Wildlife Service
Michael W. Tome, Supervisor, Cooperative Research Units
Duane R. Diefenbach, Unit Leader

Back row (left to right):

B. J. Scovern, Administrative Assistant
Wendy Vreeland, M.S. wildlife
William Kanapaux, post-doctoral researcher
Kelley Salvesen, M.S. fisheries
Megan Kepler, Ph.D. fisheries
Lori Smith, M.S. fisheries
Nick Forman, M.S. wildlife
Charles Crawford, M.S. wildlife
Steve Midway, post-doctoral researcher
Glenn Stauffer, post-doctoral researcher
Amanda Parks, genetics laboratory manager
Danielle Begley, Ph.D. wildlife
Alyssia Church, spatial database manager
Tyler Evans, M.S. wildlife