Meeting Summary
Esocid Technical Committee
July 28-30, 2009

The Esocid Technical Committee met jointly with the Centrarchid and Walleye Technical Committees from Tuesday, July 28, through Thursday, July 30. Attendance at the meeting was moderate, but reasonable considering the travel restrictions many members encountered. The three committees had a combined attendance of about 35 members, with approximately 15 in the Esocid Technical Committee. The agenda is below. The meeting included ten contributed papers, four roundtable discussions, and a separate business meeting for each group.

The business meeting of the Esocid Technical Committee included statewide reports that had been submitted in writing, as well as some presented verbally. Dakota, Indiana, Michigan, and Minnesota provided written reports, which are included below. Mike Anderson from Missouri presented a verbal report about the development of a Missouri musky management plan focusing on the Green River strain of muskellunge, which is available online. Dave Rowe presented an update on Wisconsin activities, including the importation of a thousand fish from Georgian Bay to revitalize the brood stock of spotted muskellunge used for Green Bay. Wisconsin has also begun a program of rotating brood stock in their hatcheries, where fish were replaced in their brood stock at a regular interval. They have also begun a program of trophy lakes in their management plan and intend to have about 5% of all muskellunge lakes in a trophy category. They also intend to evaluate a 40-inch statewide size limit. Greg Wanner gave an update on the Dakotas Chapter regarding spearing for pike in the Dakotas. Ed Braun provided an update on Indiana, in particular their problem with collecting spawn during this year.

In addition to the chapter updates, several regular activities were reported upon. Jordan Weeks circulated his update of state and provincial regulations and asked for help to solicit information from states or provinces where there were no responses.

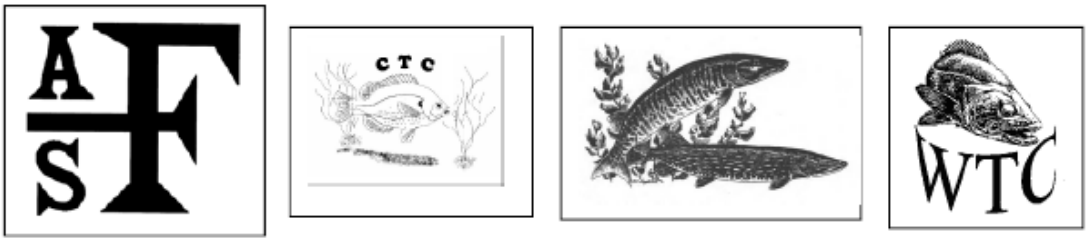
Two other issues were considered. The first was on dates and a location for the next summer meeting. The committees overall agreed that probably the best plan was a meeting of the three technical committees together at some near-border location. This should be scheduled for sometime between July 19 and August 6, 2010, in Dubuque or La Crosse. We will poll members to see which dates and location would be most practical and if there are any conflicts. We should also consider the most appropriate location.

The topic for next summer's meeting was discussed. The discussion mostly focused on workshops on GIS, fish health, or age-and-growth. The age-and growth workshop had the most support, with the intent being to bring in people from different locations who use different materials for aging fish. The workshop would focus on musky, pike, walleye, perch, and centrarchids. Some people who were suggested to present at the workshop were Kent Bass from Spooner on cleithra, Brian Blackwell from South Dakota on spines, Nate Thomas from Indiana on aging muskellunge, Patrick Hanchin from Michigan on spines.
Finally, the chair position was discussed. Previously we agreed to have chairs that represent the state hosting the Midwest Conference each year. In 2010, that is Minnesota. With that in mind, Rod Pierce was nominated, then elected chair for 2010.

NORTH CENTRAL DIVISION OF THE AMERICAN FISHERIES SOCIETY

JOINT MEETING

Centrarchid, Esocid and Walleye Technical Committees



SCHEDULE

TUESDAY, JULY 28th

5:00 PM – Meet in motel lobby for transportation to social location

WEDNESDAY, JULY 29

MORNING SESSION MODERATOR: Jim Diana

7:30 – 8:00	Registration	
8:00 – 8:20	Welcome and Introduction of Committee Chairs	**John Kubisiak, WTC** **Jim Diana, ETC** **John Nelson, CTC**
8:20 – 9:00	**ROUNDTABLE DISCUSSION – Incorporating Genetic Principles in Fisheries Management**	
9:00 – 9:20	Determination of Bluegill Size and Age at Maturity in Southeastern South Dakota Impoundments	**Nick Peterson** South Dakota State University
9:20 – 9:40	Field and Laboratory Assessment of Walleye Spawning Habitat at Sherman Reservoir, NE	**Jordan Katt** University of Nebraska - Kearney
9:40 – 10:00	Historic Reconstruction of Walleye Diets in Two Nebraska Impoundments using Archived Scales and Stable Isotope Analysis	**Justin VanDeHey** South Dakota State University
10:00 – 10:30	**BREAK**	
10:30 – 10:50	Gender-, Population-, and Year-Specific Survival, Exploitation, and Natural Mortality of Yellow Perch in South Dakota with Evidence of Compensatory Mortality	**Casey Schoenebeck** University of Nebraska - Kearney
10:50 – 11:10	Do Introduced Smallmouth Bass Compete with Existing Walleye?	**Melissa Wuellner** South Dakota State University
11:10 – 11:30	Interactions between walleye and largemouth bass in lakes	**John Kubisiak** Wisconsin DNR
11:30 – 11:50	**ROUNDTABLE DISCUSSION – Bass and Walleye Food/Habitat Competition**	
11:50 – 12:10	**ROUNDTABLE DISCUSSION – Walleye and bass interactions**	
12:10 – 1:00	**LUNCH**	

AFTERNOON SESSION MODERATOR: Donna Muhm

1:00 – 1:20	Green Bay Spotted Muskellunge Natural Spawning Evaluation	**Kyle Battige** University of Michigan
1:20 – 1:40	Movement, Behavior, and Spawning Site Selection of Muskellunge in a Chain of Lakes in Michigan	**John Molenhouse** University of Michigan
1:40 – 2:00	Development of a GIS Model to Predict Muskellunge Spawning Habitat in Northern Wisconsin Lakes	**Joe Nohner** University of Michigan
2:00 – 2:30	**BREAK**	
2:30 – 3:00	The effects of a 40-0inch Minimum Length Limit onn Muskellunge	**Tim Simonson** Wisconsin DNR
3:00 – 3:30	**ROUNDTABLE DISCUSSION – Muskellunge Spawning Research: Fisheries Management Implications**	
3:30 – 4:00	**ANY FURTHER TOPICS OF INTEREST**	
3:30	**CATFISH FRY AND FISHING**	Goose Island County Park

THURSDAY, JULY 30

8:00 – 9:00	**ROUNDTABLE DISCUSSION – Meeting Evaluation and Suggestions for Future Meetings**	**Chairs**
9:00 – 9:30	**BREAK**	
9:30 – 11:30	Individual Committee Business Meetings	
11:30	**HAVE A SAFE TRIP HOME!**	

Dakota Chapter AFS ETC Report

Greg A. Wanner
Dakota Chapter Esocid Technical Committee Representative

South Dakota

Angling Regulation Changes

South Dakota Game, Fish, and Parks continued to combine open water and darkhouse spearing regulations and extended the spearing season from June 15 to March 1. This included 19 lakes, reservoirs, rivers, and creeks.

New research:

Age Structure and Recruitment Patterns of Northern Pike Populations in Northeast South Dakota

Dr. Brian Blackwell

In 2008 objectives were to describe northern pike population characteristics in 18 lakes among three different types of water bodies including: 1) permanent natural complex fish communities, 2) marginal natural simple fish communities, and 3) newly flooded wetlands/lakes. Additionally, the study will compare aging structures such as otoliths, scales, and cleithra cross sections. In

2009, the study added six lakes that are shallow semi-permanent wetlands and added the metapterygoid bone for aging.

Recent esocid research from South Dakota State University

Rydell, J. J., J. C. Jolley, Q. E. Phelps, and D. W. Willis. 2008. Northern pike (Esox lucius) population characteristics and relations to recruitment in Hackberry Lake, Nebraska. Transactions of the Nebraska Academy of Sciences 31:43-49.

Abstract – Knowledge of the population structure of northern pike (*Esox lucius*), an important recreational and top-level piscivore, is essential to Nebraska Sandhill lakes management. We collected a sample of adult northern pike from Hackberry Lake in June and July 2004. Proportional stock density (PSD) was 98 (95% CI = ± 3) and relative stock density of preferred-length fish (RSD-P) was 40 (95%CI = ± 9). Northern pike were aged using sagittal otoliths, and fish from the 1993 to the 2002 year classes were present in our population sample. Age-frequency histograms revealed relatively consistent recruitment of northern pike, as no missing year classes were detected, but year-class strength was variable among years. Examination of mean length at age suggested that growth was rapid in the first two years and slowed thereafter but was faster than populations in other locations, perhaps because this population is near the edge of the geographical range for this species. Year-class strength of northern pike was negatively related to spring wind speed and was curvilinearly related to spring air temperature. The strongest year classes occurred in years with relatively moderate air temperatures and lower wind speeds. This research provided useful information regarding northern pike population characteristics and recruitment in one Sandhill lake.

North Dakota

Harsh conditions with record levels of snowfall across the state during the 2008-2009 winter created many total winter-kill lakes. However, the record snowfall increased lake levels and created new lakes providing for excellent northern pike production and recruitment.

Angling Regulation Changes

North Dakota Game and Fish Department in 2009 and 2010 expanded the number of lakes open to darkhouse spearing for northern pike by adding 16 new lakes for a total of 52 lakes across the state. North Dakota Game and Fish Department extended the season with an additional two weeks to the season beginning December 1 and ending March 15th each year.

Indiana ETC Report

Nate Thomas
Indiana Chapter Esocid Technical Committee Representative

As most of you know, Ed Braun retired in May. Nate Thomas, who oversees the state's muskie broodstock capture data, will be the new representative from Indiana and is glad to be on board. Unfortunately, due to fiscal circumstances, he is not able to attend the first hopefully many meetings to come.

This past spring marked the fifth year of IDNR's Passive Integrated Transponder (PIT) tagging efforts on Lake Webster, the state's destination for broodstock collection. Since 2005, 1,613 fish have been collected in large trap nets. This year we will be drafting a large summary report to establish an accurate population estimate (estimates have ranged from 3 to 7 per acre), determine overall rates of recruitment and other appropriate summary statistics.

Additionally, by the help of a local muskie guide, this year also marked the first year in which tagged muskies have been observed in downstream lakes. Armed with a PIT-tag reader purchased by the Indiana Chapter of Muskies, Inc., local guide Chae Dolson routinely scans angled fish on lake Webster and reports any observed tag numbers. Going simply on a hunch, Dolson began scanning muskies in Lake Tippecanoe in the spring of 2009. Though a water control structure helps contain fish in Lake Webster, three tagged fish have been found in Lake Tippecanoe thus far, all between 34 and 36 inches. Though a water control structure generally restricts movement downstream from Lake Webster, fish have freedom to move during heavy rain events.

Michigan ETC Report

Kregg Smith
Michigan Chapter Esocid Technical Committee Representative

Summary of Public Comments on the Draft Michigan Muskellunge Management Plan

The draft Muskellunge Management Plan was unveiled for public comment in late March, 2009. Comments on the draft plan were invited from the public. The plan was presented to the Michigan Musky Alliance on March 7 and to the Michigan Inland Lakes Partnership on March 26, 2009. The plan was also distributed to the various regional eco-teams with the Department. A statewide press release was prepared by the DNR press office and an e-mail mailbox was set up to facilitate public comments on the plan. The comment period ran from March through April 30.

A total of 54 comments were received that specifically addressed the draft Muskellunge Management Plan. Some comments were short and sweet, while others were much longer and more involved. Overall, 41 of the 54 comments received, or 76% of the total expressed general support for the draft management plan. Only 6, or 11%, of the comments did not support the plan. Three of the comments in opposition to the plan expressed concern about the costs for expanding the muskellunge program and the low number of anglers that would benefit. One described the muskellunge fishery as a “niche” fishery.

While many of the comments included unique or individual suggestions, a few common threads were evident. On the subject of stocking, 12 comments (22%) indicated more stocking was needed, 3 comments (6%) suggested protecting and enhancing natural reproduction, and 1 comment (2%) requested that tiger musky stocking be revived in Michigan. The proposal within the management plan to develop a Great Lakes strain broodstock program was specifically supported by 15 (27%) of the comments.

Regulations were also frequently a subject of the public comments. Ten comments (18%) expressed a desire for a higher minimum size limit (MSL), such as 50”, or Catch-and-release

only regulations. A total of 4 comments (7%) mentioned a change from the 1 fish daily bag limit to a 1 fish per year bag limit with a kill-tag type system. Additional restriction or a complete ban on spearing of muskellunge was mentioned in 9 of the comments (17%), while 1 comment requested additional muskellunge spearing opportunities. Two comments voiced opposition to the current and proposed uniform statewide 42" MSL and suggested a two or 3-tiered system for muskie waters in the state based on productivity, genetic strain of muskie present, and presence/absence of natural reproduction. Other regulatory suggestions included restrictions on use of live bait in muskellunge waters to reduce hooking mortality, creation of a two-tiered fishing license with harvest license more expensive than a C&R only license, a UP muskellunge season open from May 15 to December 1 (to eliminate spearing), and C&R only regulations for all broodstock lakes.

Great Lakes strain of muskellunge will be reared in state hatchery facilities during 2010 for the first year class to establish broodstock lakes and to stock any surplus into waters connected to the Great Lakes.

Summary of Northern Pike Public Comments

The draft Northern Pike Management Plan was unveiled for public comment in late March, 2009. Comments on the draft plan were invited from the public. A statewide press release was prepared by the DNR press office and an e-mail mailbox was set up to facilitate public comments on the plan. The comment period ran from March through April 30. Presentations of the plan were given at the Michigan Inland Lakes Partnership meeting on March 26, 2009 and a draft copy was submitted to the regional eco-teams during April.

A total of 197 comments were received that specifically addressed the draft Northern Pike Management Plan. Overall, 168 of the comments received, or 85% of the total expressed general support for the draft management plan. Only 29 comments, or 15%, did not support the plan. The comments that did not support the plan either viewed northern pike as an unimportant species to manage or did not want changes to current regulations.

While many of the comments included unique or individual suggestions, a few common threads were evident. On the subject of spearing, comments indicated support for prohibiting spearing or increasing the minimum size limit, while others thought that changing the regulations would affect spearing opportunities. Other comments included simplifying the regulations and lengthening the season for rough fish only. General comments on the biology section of the plan recognized the high biomass of freshwater drum, suckers, carp, and quillback that are in the drowned river-mouth lakes and a large predator is absent from balancing these populations.

Regulations were frequently a subject of the public comments. There was a wide variation in comments regarding the types of regulations that anglers prefer. Overall, 163 of the comments, or 83%, supported some form of a protected slot limit. There were 19 comments, or 10%, that did not want any change to current regulations or an increase from 24 inches to 26 inches. There were 10 comments, or 5%, that wanted no minimum size limit. There were 5 comments, or 2%, that express a desire for some form of a maximum size limit. Creel limits of 3 northern pike

were mentioned in 42% of the comments. Creel limits of 5 northern pike were mentioned in 10% of the comments.

Northern pike regulations will be presented to biologists and anglers during the fall of 2009. Protected slot limits will be a topic of discussion for the state, depending on a bill currently in the Minnesota legislature calling for removal of all slot limits on northern pike and depending on Michigan's Darkhouse angling association's bill within the Michigan legislature that is looking to stop similar regulations on northern pike.

Minnesota ETC Report

Rod Pierce
Minnesota Chapter Esocid Technical Committee Representative

The following update is provided for the summer 2009 meeting of the NCD Esocid Technical Committee and highlights new information from Minnesota for 2009.

A long-range plan for management of large esocids in Minnesota was developed and the plan can be viewed at the MNDNR website: http://www.dnr.state.mn.us/fisheries/muskiepike_2020.html. Consensus for the long-range plan was not attained, but based on public and professional critique, a workable plan was developed.

New legislation has increased the statewide minimum length limit for muskellunge to 48 inches beginning next year. An exception will be hybrid muskellunge populations in the Twin Cities metropolitan area that will be exempted from the new length limit. Legislation also resulted in a new non-resident license for darkhouse spearing for northern pike. Only Minnesota residents have been allowed to spear until now.

New research underway in Minnesota includes using PIT-tagged muskellunge in Elk Lake as a means for tracking population dynamics of the muskellunge population. Elk Lake is a broodstock lake in Itasca State Park. Another study is also using PIT tagging to compare the stocking success of yearling versus fingerling muskellunge near the Twin Cities metropolitan area. A study of the thermal habitat used by northern pike and cisco implanted with acoustic transmitters was initiated this spring. The acoustic tags are providing information about temperatures and depths of the fish. Finally, a new longitudinal tagging study of northern pike was initiated in a USGS long-term monitoring lake (Shingobee Lake). Contacts for more information include Jerry Younk (MNDNR) for the muskellunge studies, Rod Pierce and Andy Carlson (MNDNR) for the acoustic telemetry study, and Bruce Carlson (U of Michigan) for the pike tagging study.