Muskellunge Team Meeting Notes
South District HQ – Fitchburg
Wednesday, February 29, 2012

In attendance: Bob Haase, Jordan Weeks, Mark Luehring, Steve Hogler, Terry Margenau, Martin Jennings, Gary Lindenberger, Joe Weiss, Justin Van De Hey, Brian Sloss, Dan Isermann, John Aschenbrenner, Steve Gilbert, Dave Rowe, Tom Penniston, Doug Welch, Scot Stewart, Tim Simonson.

1. The charge to the committee was reviewed, discussed and revised at the August, 2011 meeting and forwarded to the FM Board for review and approval. The final version that was modified by the FM Board was sent out previously, along with the "Teams Handbook, which provides guidance to team members and leaders. We briefly reviewed the current charge (http://dnr.wi.gov/fish/musky/muskymanteam.html). There were no comments or concerns.

2. RULES Update: The statewide default 40" minimum length limit will take effect this spring for most waters that do not already have special regulations. We will get the word out to anglers with a couple of press releases as the season gets closer. As goes for the quick-strike rig requirement, which also takes effect this season. We reviewed proposed regulations that will be presented at the 2012 spring hearings (http://dnr.wi.gov/org/nrboard/congress/spring_hearings/2012/2012%20Spring%20Questionnaire%20FINAL40pg.pdf). This spring, all questions will be advisory in nature, and are more or less general concept questions that do not get into specific rule changes. However, there are two specific advisory questions on allowing motor trolling statewide. The first is from the FM Board. There are 3 parts to the question, based on the number of lines that would be allowed per angler (favor motor trolling with 3 lines, 2 lines or 1 line). The second is from the Conservation Congress and simply asks whether attendees favor motor trolling statewide. The Conservation Congress also has a question aimed at allowing "trolling" with live bait, when musky anglers are pulling live suckers behind the boat while casting an artificial lure. Pursuant to our discussions of this issue in August 2011, we developed a specific rule change proposal to allow motor trolling statewide (see below). Simonson also drafted a memo for FM to LE seeking clarification on the enforcement of trolling with the use of life bait. We are asking the LE allow the use of live bait while the boat is positioned along structure, etc. For the 2013 spring hearings, there are 2 musky-related proposals in the "hopper" that have been approved: The first is a placeholder for a rule change to allow motor trolling statewide (3 lines/angler). We will likely examine the results of the 2012 votes to refine this question for 2013. The second is a proposal to increase the minimum length limit to 54" on the outlying waters of Lake Michigan (including Green Bay and the Lower Fox River).

3. Propagation/Stocking - We reviewed the stocking guidance, as drafted for inclusion in the newly revised version of the muskellunge management chapter for the FM Handbook (http://dnr.wi.gov/fish/musky/Chap20_%20MuskellungeManagement_tds.pdf). One suggestion was to include a map of the basin boundaries used for brood stocks. We also discussed the need for criteria and specific stocking rates for larger fall fingerlings. There are some biologists that feel that a larger product may be needed in certain waters with high predator densities. There was a general feeling that the current products, which typically exceed 10", are large enough for most applications. Simonson will work with Margenau to develop a specific paired stocking project to evaluate the use larger fingerings in a few specific waters that seem to have poor success with the current product (e.g., Big McKenzie, Shell, others?). This project (the forage costs) would be funded by a gift from the Musky Clubs Alliance. This led to a general discussion about increasing costs to produce large fingerling muskies (high forage costs and issues with the health status of the minnows). We discussed two options to address this issue. The first was raising muskies on dry (pelleted) feed. The second was stocking fewer, high quality fish. There is a long list of studies that have shown poor survival in the wild of pellet-reared muskies. However, some suggest that the newer formulations better meet the nutritional needs of specific cool-water fishes. The advantage is that the cost tends to be lower for dry feed than for live minnows, and there are fewer concerns with bio-security in the hatcheries. Size at stocking seems to be the critical factor, with about 10" being the minimum length for good survival. Other factors may influence survival of fish raised on dry foods. We discussed a study proposed by Justin VanDeHey, UWSP, to compare muskies raised on minnows, dry feed, and a combination of minnows and dry food. We endorsed the study and, while some felt that the study would be stronger and more direct with 2 treatments (live versus dry), we left it up to Justin and a select group of advisors to determine the final design of the study. Justin also described another proposed study to evaluate the efficacy or our current brood stock management plan for muskies. The study would analyze

much of the existing tissue samples, and it would also involve a more intensive, targeted analysis of genetic diversity at several stages within the hatchery. We also endorsed this project. We also discussed other options to address a decrease in production fish due to increasing costs: Namely, stocking fewer fish while maintaining the quality. There were several suggestions, including reduced stocking rates (0.25/acre was mentioned), higher frequencies (every 3 years was mentioned), focusing on higher profile waters (large trophy waters and important action waters), eliminating smaller waters from the quotas, etc. This was a general discussion and nothing was set in stone. It was concluded that the individual biologist would be in the best position to respond to reductions in quotas at this point in time. We also discussed the FM Board charge of determining "cost to creel". We have previously developed estimates for cost per survivor to 18 months for fry, fingerlings and yearlings. There are limited data on survival of stocked fish to adult ages. We do have some older estimates available, so we were able to come up with some numbers. Martin Jennings will have some more solid data on survival of stocked fish to adulthood within the next couple of years, so we can refine our estimates at that time. We also had a difficult time figuring out why the costs for yearling fish have increased so much between 1999 ($5.86) and 2003-06 ($421.34). Also, we wonder why spotted muskies would be so much cheaper to raise as yearlings ($59.29 versus $421.34) than inland muskies. Gary Lindenberger suggested that there may be some problems with the cost estimates for yearlings. We need to check in with the Fish Culture Section on the validity of/confidence in these cost estimates. Based on the increased costs of fall fingerlings from 1999 to 2006, in reality, yearlings are likely no more that $10-15 per fish.

4. We reviewed the rest of the Muskellunge Management chapter, developed as a draft for the FM Handbook (Chapter 20) (http://dnr.wi.gov/fish/musky/Chap20_%20MuskellungeManagement_tds.pdf). Under Goal I.B., we want to insure that the landscape-scale model developed from the Nohner thesis becomes part of our management "tool box". There was some discussion regarding our goal of increasing the number of 50" and larger muskies in Class A1 waters (Goal II.A). We agreed that anglers clearly consider 50" fish as a "trophy", but that we are generally trying to increase the number of 45" and larger fish in these populations. It is difficult to establish an index for 50 inch and larger fish, because they are uncommon in our sampling gears. We agreed to reword the goal as follows: Manage Class A1 waters to increase the catch of 45" and larger muskies, with some fish over 50". As part of this discussion, we also talked about some issues related to conducting population estimates, as it relates to behavior of spawning fish, and specifics concerning recommendations for aging muskies. We plan to have Dan Isermann and the "Fish aging Task Group" provide input on aging methods. Simonson will update the chapter as appropriate. There was discussion and general agreement suggesting that all muskellunge sampled in the state be PIT tagged. We need to work on this idea some more to define the purpose and develop a plan to get all biologists the gear and tags they would need to accomplish this. Also, we need to look into how we would import/upload tag numbers from stocked fish into the database so they would be available in the future when these fish are recaptured.

5. We finalized our review and approval of the Great Lakes Muskellunge management plan. All members have had ample opportunity to review and provide comments to Steve Hogler. Steve has addressed all the comments and the latest version is available (http://dnr.wi.gov/fish/musky/muskymanteam_products.html). We also briefly updated the team on the status of the 3,000 spotted muskies imported from Michigan. These fish were spawned from Lake St. Clair, reared by the state of Michigan to 3-4", tested for diseases, transported to Wild Rose Hatchery, and due a variety of problems, almost all were lost to predation, columnaris, nematode infestations, heavy bacterial infection (Aeromonus), and fathead minnow nidovirus. We will try again this spring to obtain these fish from Michigan. They will be closely monitoring the hatchery environment this coming season and can hopefully figure out what happened with these fish.

Information items:

6. North Central Division, AFS, Esocid Technical Committee Report
   (http://www.ncd-afs.org/Default.asp?mid=23&sid=32)

7. "Effect of harvest mortality on muskellunge size-structure in Wisconsin's Ceded Territory". 2012. Matt Faust – UWSP, Final Thesis (http://dnr.wi.gov/fish/musky/muskymanteam_products.html)

8. Musky Angler Survey – Dan Isermann – UWSP
   (http://dnr.wi.gov/fish/musky/documents/muskellungeanglersurvey.pdf)

9. Annual Meeting, American Fisheries Society, Twin Cities, August, 2012 (http://www.afs2012.org/)
10. Musky symposium, Twin Cities, Spring 2016 – Muskies Inc., details to come.
11. NEXT MEETING - Musky Team, September 5, 2012 – KEMP BIOLOGICAL STATION, Minocqua