

Muskellunge Standing Team Meeting - Draft Notes

August 2, 2006 – Kemp Natural Resources Station

1. Update on LL rearing - Gary Lindenberger provided an update on status of LL fish in the Spooner Hatchery. Apparently, the fish are not consuming the volume of forage that he would expect at this developmental stage, which means that they either had poor survival and are low in numbers or are small for their age, or both. There is no way to predict how many will be available for stocking in fall, but Gary thinks that there should be enough for the St. Croix Basin study lakes, and perhaps one other lake. The biologists for the 4 study lakes will get together and try to prioritize which lake will get the fish if there is a shortage. It was decided that if there is a shortage, it would be better to try to put the full complement of fish into fewer lakes (rather than a small portion of the quota in each lake), due to the anticipated difficulty recovering fish later in time. We also heard informally from Curt Wagner, INHS (via email), that the LL fish were not fairing too well in paired stocking trials in IL reservoirs. WI-source fish were also not performing as well as other, more southern sources, but that they have been performing better than LL fish. A progress report is due out soon.

After the meeting, the biologists from the study lakes outside the native range agreed to randomly assign priority for available LL fish. After a random draw, priority order for 2006 was determined to be 1) Monona, 2) Delavan, 3) Wisconsin.

2. Lake Neshonoc Introduction – Jordan Weeks provided an overview of his internal environmental assessment of introducing muskellunge to Lake Neshonoc. The committee felt that Jordan did a good job of characterizing the situation and recommends that the stocking proceed.

3. Stocking yearlings versus fall fingerlings – Scot Stewart presented the findings from 4 SCR lakes which suggest that spring yearlings exhibit better survival than fall yearlings. There were some concerns with the experimental design (having competition between the treatment groups and stocking them at different times and ages in the same lake), but the evidence still suggests that spring yearlings provided a better return. The committee reviewed the available information on yearlings vs. fall fingerlings from a statewide perspective and there appears to be a potential for cost savings, although a more thorough cost evaluation is still needed. The potential exists for replacing fingerlings with yearlings (which may prove to be cost effective). At the present time, there are too many logistical questions to be answered (e.g., flow in ponds over winter is not possible without significant renovations and potential for pipes freezing, increased spring workload with broodstock collection and pond harvest) before we can conclude that production should shift entirely to yearlings. We also discussed holding fingerlings later into the fall, but I believe Terry's published study suggested no significant overall benefit (need to look into this with Terry). Our recommendation at this point is that yearlings be listed on the quota system, in order to evaluate demand, and that a stepped approach should be used, where 1) information is provided that shows that the fishery or population goals are not being met with fall fingerlings, at which time 2) higher stocking

densities of fall fingerlings could be attempted. If higher densities of fall fingerlings also do not result in achievement of population or fishery goals, then 3) yearlings could be used. The specific issue on Silver lake is not viewed as a biological issue - it appears to be more of a cooperative effort to encourage good working relations with the Portage Musky Club, so a decision on that specific water is beyond the scope of the committee, other than to say that it is likely not a biological concern either way. There are just too many examples of fall fingerling stocking which have resulted in high adult densities to conclude that FF are not a sufficient (albeit possibly less cost-effective) product for our program. Retooling our hatchery system to raise yearlings would incur significant costs that are not included in the available analyses, which to date have focused on small-scale studies.

4. Extended Fall Fishing season - Rule Change – Scot Stewart presented a proposal to extend the open season for muskellunge south of U.S. Highway 10 until later in the fall. After discussion, along with input that Scot had obtained from Law Enforcement, the committee recommended the proposal be forwarded with a specific ending date (rather than “during open water” or “before ice-up). It was felt that by extending the open season through December 31 (rather than November 30), it would keep enforcement simple and there is a very small chance of ice fishing for muskellunge. That chance already exists in some years throughout the state with the current season.

5. Repeal landing net size restriction – Rule Change – Tim Simonson presented a proposal to repeal the restriction on the size of landing nets that may be used to land legally hooked fish. The committee recommended the proposal be forwarded as written.

6. Slot Length limits – There was continued discussion on the concept of a slot length limit, including mention of no minimum length limit, and maximum length limits. The issue here is to set a population goal and provide harvest opportunities in lakes that are not meeting their goals. It makes some sense to allow the harvest of younger, more abundant fish, when the overall goal is to provide trophy fishing opportunities. This type of regulation proposal would likely be limited to higher density, slow growing populations. The issue of consumption advisories was also mentioned and it was noted that most fish over 40” statewide exceed the 1 ppm mercury level. It was also acknowledged that angling was unlikely to reduce densities in most of these lakes. We don’t know if the current 28” minimum has been effective in reducing densities, even when combined with reduced stocking rates. The rule category would serve more as a reflection of the population status and would be compatible with other efforts that would be needed to meet population goals. The committee recommended that a more harvest-oriented option be available to fisheries biologists (to replace the 28” minimum) and that the specifics of each proposal would be evaluated by the committee as proposals are received. Ultimately, the committee should develop a standard harvest-oriented regulation to address situation where density reduction is the goal.

7. Update on Genetic Study – Brian Sloss and Ed Murphy provided an update on the genetics study that is ongoing. They have data from 25 populations (with a few more coming) and Ed has been running historic and contemporary samples from Lac Courte

Oreilles up until the meeting. In terms of the temporal study, they found no evidence to suggest that the population in Lac Courte Oreilles has been significantly impacted by the stockings of fish from Spider Lake (1956) and Mud-Callahan (). The genetic integrity of the LCO population has remained relatively unchanged since prior to 1956. There were indications of a non-Spider Lake short-term impact in 1976, but subsequent samples were similar to 1956, indicating that it was not a long-term shift in the population. They will be looking at more samples bracketing 1976, and Steve Gilbert provided some evidence that fish from Woodruff may have been stocked in NW Wisconsin waters around that timeframe. Further investigation is ongoing, but the bottom line is that there have been few changes through time, and none of them have persisted in the population.

8. Cross-drainage stocking practices. A brief reminder that basin stocks are now available on the quota database and biologists in the NOR should be specifying sources compatible with the location of the waterbody. Tim will go through the quotas over the next couple years to make sure that the proper source is indicated for lakes within the native range.

9. Designated Trophy lakes. Discussion on this topic was brief but there appeared to be consensus among the committee members that it was a good idea. This effort will involve reclassification of lakes, and in light of other ongoing efforts (item #10), these changes should be coordinated and done in concert with one another. Therefore, we recommend pursuing the idea, along with the effort to classify lakes and develop management goals for groupings of lakes.

10. Development of management goals by lake class – Tim described a new assignment from the FM Board to revamp the monitoring program. The effort involves identification of unique classes of lakes, developing a monitoring strategy (including annual sample size, based on observed variance and desired alpha and beta), refining sampling protocol (where needed), and, ultimately, applying management actions across strata, rather than lake-by-lake, with exceptions for unique, important waters. Some examples of criteria being considered for selection of unique waters include: popularity (based on mail survey responses); intensity of management (e.g., based on investments in stocked fish); and intensity of use (hours/acre). We are examining the following *a priori* lake factors that have been shown to influence fisheries: latitude and geological setting (region); stratification and oxygenated hypolimnion (presence of coldwater species such as cisco); gamefish assemblage (diverse or simple); connectivity to other waters, watershed position, and depth (lake classes 1-6); and lake size (surface area). These will be compared to the existing management classification schemes currently in use. A report will be completed by September 15 for review.

11. Next meeting – We will tentatively plan to hold a meeting in February, 2007.

Tim Simonson