

ONTARIO FEDERATION OF ANGLERS & HUNTERS



Ontario Conservation Centre

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Mr. Kyle Rogers, Management Biologist
Ministry of Natural Resources and Forestry
Provincial Services Division
Fish and Wildlife Services Branch
Upper Great Lakes Management Unit - Lake Huron
1450 Seventh Avenue East
Owen Sound, Ontario
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Dear Mr. Rogers:

Subject: EBR #012-4341 - A Stocking Plan for the Ontario waters of Lake Superior

On behalf of the Ontario Federation of Anglers and Hunters (OFAH), its 100,000 members, subscribers and supporters, and 725 member clubs, we have reviewed the proposed stocking plan for the Ontario waters of Lake Superior and have composed the comments below.

The OFAH is in strong support of the Thunder Bay Salmon Association's (TBSA) continuation of stocking Chinook Salmon into Lake Superior. Community involvement in conservation efforts is a critical element in raising awareness of the importance of our natural resources in the local community. The TBSA is a dedicated club who has a long-standing commitment to conservation in the Thunder Bay area, particularly the maintenance of a Chinook Salmon recreational fishery. Community hatcheries like the TBSA not only raise public fish for public waters, they get communities engaged in fisheries management and other conservation issues. Many community hatcheries double as community learning centres where they educate youth and the general public about fish ecology and fisheries conservation. The TBSA will, undoubtedly, continue to provide an excellent service for the people of Ontario through their volunteer conservation efforts.

The fishery of Lake Superior is a provincially significant resource that provides a great deal of social and economic benefits to the Province of Ontario, and as a provincial stakeholder, the OFAH believes that any and all potential avenues should be explored to maintain and enhance the recreational fishery, wherever possible.

The OFAH would like to thank the Ministry of Natural Resources and Forestry (MNRF) for composing a stocking plan for Lake Superior and applaud the development of goals and objectives for the future direction of stocking in the lake. If properly applied, this initiative could provide significant future direction regarding maintaining a thriving fishery on Lake Superior; however, the OFAH has some concerns regarding the proposed goals and objectives of the Lake Superior stocking plan.

Fish Community Monitoring in the Ontario Waters of Lake Superior

The OFAH is concerned that the data collection methods used to assess the contribution of hatchery-reared Chinook Salmon in Lake Superior may be too limited to draw definitive conclusions. A great deal of focus is given to the TBSA's Salmon Derby for the provision of data, and while this is an excellent opportunity to gather a large amount of information and engage anglers, it is confined to a minimal spatial and temporal scale that is too narrow to base management decisions for a waterbody the size of Lake Superior. Further effort must be made towards the characterisation of the fisheries of Lake Superior through research and monitoring to be able to best manage this resource.

Mr. Kyle Rogers
August 6, 2015
Page Two

Currently, the future of stocking fish into Lake Superior will be guided by the proposed long-term objective established within this document:

Establishment of a self-sustaining population of Chinook Salmon returning to the Kaministiquia River and its tributaries on an annual basis with over 75% of the fish of wild origin where:

- *this proportion is based on an annual, minimum sample of 100 fish; and*
- *this proportion is evident over at least four consecutive years.*

Upon consideration of this objective, it is apparent that the outcome does not assess the need for stocking or the efficacy of stocking in Lake Superior. Rather, it only serves to determine if the Kaministiquia River is an appropriate stocking location for this species and, because of this, the objective alone should not be applied in a manner that would dictate the future of stocking on a lake wide scale. As such, we strongly recommend that the long-term management goal would remain consistent with the Fish Community Objectives (FCOs) of Lake Superior:

“Manage populations of Pacific Salmon, Rainbow Trout, and Brown Trout that are predominantly self-sustaining but that may be supplemented by stocking that is compatible with restoration and management goals for indigenous fish species.”

Our justification being that the current FCO will maintain a truly adaptive approach to managing the fishery. This would allow for future expansion of stocking (number of fish, stocking sites) should it be deemed necessary with the caveats that lake-wide fishery benchmarks need to be established and monitoring must be carried out to assess the condition of the fisheries in comparison to the benchmarks.

Kaministiquia River Chinook Salmon Population Monitoring

We are pleased the Upper Great Lakes Management Unit (UGLMU) has committed to annual monitoring of the Chinook Salmon population in the Kaministiquia River to determine the success of the stocking efforts by the TBSA; however, we have questions with respect to the protocol. Assessing the proportion of hatchery-reared versus naturally reproduced adult Chinook Salmon returns is a critical piece of determining the success of a tributary stocking program; however, other life stages could be considered to determine the spawning success of the population (i.e. summer and over-winter survival or smolt outmigration numbers). Will some of these other important pieces of information be considered in future assessment efforts? Will the sampling of the Kaministiquia River Chinook Salmon spawning run occur during the whole spawning period or only focus on a small number of days when the Chinook Salmon spawn is at its peak? Experiences on Lake Ontario have shown that the proportion of hatchery-reared fish contributing to the spawn can vary greatly based on seasonality and that if only a small portion of the spawning season is observed, the proportion of wild to hatchery-reared fish observed may not reflect the actual state of the population. Considering that the sample size is defined as a minimum of 100 fish, will the sampling be limited to the time it takes to capture the minimum sample size (potential to be a small number of days), or will the sampling be strategically spread out over the duration of the spawn to capture any intraspecific behavioural variation?

Adaptive Management

The OFAH is in strong support of an open and transparent adaptive management process for stocking in Lake Superior, particularly for species such as Walleye, if a need develops in the future. In addition to Walleye and Chinook Salmon, should Brown Trout be considered as a future candidate species for stocking, because the Fish Community Objectives for this species remain unmet?

A critical aspect of adaptive management is monitoring effectiveness. Beyond the proposed monitoring in the Kaministiquia River for the proportion of hatchery-reared to naturally-produced Chinook Salmon, what monitoring is being planned for fisheries assessment in the Ontario waters of Lake Superior? What information currently being collected by the UGLMU would identify the “need” for future stocking?

Mr. Kyle Rogers
August 6, 2015
Page Three

Disease Testing

The disease testing element of the monitoring objective could prove to be a prohibitively expensive requirement if the volunteer-led community hatchery were required to test 120,000 Chinook Salmon fingerlings. This is also inconsistent with what is required of other community hatcheries in Ontario. Is the MNRF willing to have these fish tested under their Fish Culture Section's disease testing contract with the University of Guelph?

Long-Term Stocking Licences

Considering that this stocking plan has long-term objectives, the OFAH would encourage the MNRF to consider issuing multi-year aquaculture-related licences to the TBSA (i.e. Licence to Stock, Aquaculture Licence, and Licence to Collect Fish for Aquaculture) to provide greater certainty and stability for the hatchery that will assist with operational planning and volunteer retention. Multi-year licences have been issued to many other community hatcheries, and it would help to reduce the administrative burden on the TBSA and the MNRF. Should multi-year licences not be a possibility, the OFAH strongly urges the MNRF to issue the appropriate licences for the collection of gametes in a timely manner each year to allow volunteers from TBSA ample time to coordinate their wild-spawn collections.

Conclusions

The OFAH has long called for formal stocking plans for all fisheries management zones in Ontario. Again, the OFAH would like to thank the MNRF for composing a stocking plan for Lake Superior and support the development of goals and objectives to guide stocking in the lake. However, we caution the application of scientific data beyond the scope of its capacity. A data set limited spatially and temporally (time of year), even though it is long-term, should not necessarily be used to imply the condition of the fishery of a lake, particularly a body of water the size of Lake Superior. The suggested objective outlined in this stocking plan does serve the purpose of determining the success of stocking the Kaministiquia River, but it does not provide the entire picture of the overall fishery at this time. The MNRF needs to enhance their monitoring of Lake Superior to gain a clearer picture of the condition of Chinook Salmon populations within Ontario waters, so that we can make informed management decisions on this highly important fishery. We fully acknowledge the UGLMU carries out other important assessment work, and we do not want additional Chinook Salmon assessment to diminish these other ongoing programs, so we are recommending that additional funding be made available to carry out this work.

Yours in Conservation,



Tom Brooke, M.Sc.
Fisheries Biologist

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cc: OFAH Fisheries Advisory Committee
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