

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, Great Lakes Section

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Lake Ontario Fisheries Advisory Panel Meeting Agenda October 4th, 2023

1. Pizza
2. Review agenda
3. Welcome/Introductions
4. Angler perspectives on the fishery
 - Discussion on how the angler perspectives match with the creel survey results
5. Salmon River Pacific salmon run
6. Sea Lamprey numbers
7. Perspectives on the steelhead fishery
8. Chinook salmon parentage-based tagging
 - Angler tissue sample collections
 - Update on contracting and when to expect results
9. Discussion on predator prey balance indicators and 2024 stocking
 - 2023 spring preyfish survey results
 - Chinook salmon growth and condition
 - Chinook equivalents



Meeting notes

Attendance

DEC staff attendance

Position	Name	Present or absent
Fisheries Bureau Chief	Steve Hurst	Present
Lake Ontario Unit Leader	Chris Legard	Present
Region 6 Fisheries Manager	Jana Lantry	Present
Region 7 Fisheries Manager	Scott Prindle	Present
Region 8 Fisheries Manager	Web Pearsall	Present
Region 9 Fisheries	Mike Todd	Present
Lake Ontario Unit Biologist	Mike Connerton	Present
Lake Ontario Unit Biologist	Jessica Goretzke	Absent

Other DEC staff present

None

LOFAP Member Attendance

Management area	Lake or tributary	Name	Present or absent
West	Lake	Vince Pierleoni	Present
West	Lake	Bob Songin	Present
West	Tributary	Frank Campbell	Present
West	Tributary	Ron Bierstine	Present
West central	Lake	Jerry Felluca	Present
West central	Lake	Rob Westcott	Absent

West central	Tributary	Charlie Knauf	Present
West central	Tributary	Jesse Hollenbeck	Absent
East central	Lake	Brian Garrett	Present
East central	Lake	Mike Wilkinson	Present
East central	Tributary	Wayne Weber	Absent
East central	Tributary	Andy Bliss	Absent
East	Lake	Tom Burke	Present
East	Lake	Mike Howard	Absent
East	Tributary	Jason Hamilton	Absent
East	Tributary	Jim Marscher	Present
At large	N/A	Joe Yeager	Present

Angler perspectives on the fishery

- Chinook salmon was excellent throughout the season and in all lake areas.
 - The size of the Chinook appeared to be smaller this year. Salmon over 25 lbs were rare.
 - Late summer/fall staging fishery was limited in the west and west central areas.
 - Some members reported high numbers of age-1 Chinook
- Brown trout fish was good this year.
- Sea lamprey numbers were lower this year.
- Early returns to Salmon River have been good despite warm temperatures.
- Coho salmon fishing was down in the east central and east areas in late summer/fall
- Oak Orchard salmon run is still early but starting out good. Some brown trout and Atlantic salmon reported. Lower numbers of anglers at Oak Orchard.
- Niagara River had a decent salmon run with guides catching 3-5 fish/day. Fewer anglers booking salmon trips on the Niagara River.
- Cormorants were bad this spring.

Salmon River Pacific salmon run

- Good numbers of Chinook salmon are in the ladder at Salmon River Hatchery.
- Water temperatures are warm but the forecast is calling for rain and colder temps.
- Chinook salmon egg take is scheduled to begin on 10/10.
- Reservoir levels are very low. Rain is forecasted but if reservoir levels do not increase the Salmon River flows may need to be lowered.

Sea lamprey numbers

- The Great Lakes sea lamprey control report from the Great Lakes Fishery Commission was shared with LOFAP. The report is available here.

- Adult sea lamprey numbers are indexed at several trapping locations on each lake during the spring spawning run and used to estimate the adult population in each lake. The 2023 adult population estimate is a measure of how many adult sea lamprey were in the lake in 2022.
- The Lake Ontario adult sea lamprey population was the highest on record in spring 2023. This is expected and is consistent with creel survey observations and angler reports during 2022.
- Sea Lamprey control treatments are now back on schedule (since 2022) and sea lamprey should come down to pre-covid levels within the next few years.

Perspectives on the steelhead fishery

- DEC has received increasing reports of poor steelhead fishing in Lake Ontario tributaries over the last few years. LOFAP members were asked for their perspective on steelhead fishing in the lake and tributaries.
- Tributaries
 - Niagara River steelhead fishing was down in 2022.
 - Oak Orchard Creek has had lower numbers for 2-3 years.
 - Salmon River steelhead fishing has been tough the last few years.
 - Fish are concentrated in a few locations and not available throughout the river.
 - Size of steelhead in Salmon River has been smaller.
 - Salmon River did improve some in 2022/23.
 - Irondequoit did not have a big run of steelhead last year. Lower numbers seemed to trickle in.
 - Genesee River has been good during intermittent periods of fishable water flows.
- Open lake
 - Fishing quality for steelhead in the open lake can be influenced by Chinook salmon fishing, as anglers target steelhead less when Chinook fishing is good.
 - However, lake anglers reported that
 - Size of steelhead seems to be down in Lake Ontario.
 - Some members felt that steelhead fishing was down in the open lake as there was a lot of fishing effort offshore, where steelhead are most frequently caught.
 - Other members felt that steelhead were present but anglers were keyed in on Chinook during the summer.

Chinook salmon parentage-based tagging

- The partnership with LOFAP to collect tissue samples from angler caught Chinook salmon in Lake Ontario was very successful this year.
- Volunteers collected 623 Chinook salmon tissue samples.
- DEC is in the contracting process to set up a long-term contract with an academic lab to maintain the genetic library of hatchery brood stock, process and genotype tissue samples, and conduct parentage assignment analysis to determine the proportion of wild and hatchery fish in the Lake Ontario harvest.
 - We intend to have this contract in place beginning with 2024 field collections.
 - We expect results from field sampling to be available in December each year once this is up and running.

- DEC is pursuing a one-time contract to process, genotype, and analyze the 2023 field collections. We expect to have data on these samples in Spring 2024.

Predator prey balance indicators and 2024 stocking

- DEC and OMNRF agree on the total number of salmon and trout stocked in Lake Ontario each year.
- The annual stocking agreement is based on the predicted alewife biomass and the average weight of Chinook salmon.
- The 2023 spring preyfish assessment report is available here
 - Age 2 and older alewife biomass increased slightly in 2023.
 - There was a large year class of alewife produced in 2022 – measured as age-1 in 2023.
 - Age 2 and older alewife biomass is predicted to increase in 2024 and remain high in 2025.
- The average weight of age-2 and age-3 Chinook salmon in August both declined by approximately 2 pounds (1.8 lbs for age-2 and 2.1 lbs for age-3).
- The expected increase in alewife biomass is very encouraging, but the declines in the size of Chinook salmon indicate that there is still uncertainty about the overall predator prey balance in Lake Ontario.
- DEC will be working with OMNRF this fall to reach agreement on 2024 stocking levels.

Chinook salmon equivalents

- DEC and OMNRF are working to develop a set of Chinook salmon smolt equivalents
 - Different species of salmon and trout consume different amounts of prey during their lifespan.
 - Conversions used to standardize the prey consumption between different species of stocked salmon and trout.
 - For example, 1 Chinook = 3.4 brown trout
- All species are scaled relative to Chinook salmon because Chinook salmon consume the most prey and DEC/OMRF stock more Chinook salmon than any other species.
- Chinook salmon equivalents allow an agency to substitute X number of species A for Y number of species B without changing the overall prey consumption from stocking.
- Important for managing species substitutions due to changes in hatchery production (surplus/shortages).
- Allows an agency to divide a total number of Chinook salmon smolt equivalents among the different species according to the goals for the fishery.
- Chinook equivalents are calculated using estimated consumption of a fish that reaches a specified age using gross **conversion efficiency** and the average **weight** at a specified **age**.
- Final Chinook salmon smolt equivalents will be agreed upon by DEC/OMNRF as part of the annual stocking agreement.