

# Lake Superior PredatorPrey Project



*An agency, stakeholder, and angler cooperative research project*  DEPARTMENT OF  
NATURAL RESOURCES

In 2021, the MNDNR is teaming up with a number of other agencies and tribes in Lake Superior to evaluate the Lake Superior foodweb. Healthy food webs are important to ecosystem health. Lake Superior natural resources agencies that are members of the Lake Superior Technical Committee of the Great Lakes Fishery Commission also serve as the Great Lakes Water Quality Agreement's Lakewide Action and Management Plan Aquatic Community Committee. State and Tribal partners have been conducting long term monitoring programs on fish populations to support progressive fisheries, ecosystem, and lake wide management. A key component is the monitoring of ecosystem health through analysis of fish diets. Fish diet data provides managers an understanding of the status of prey resources for fish production and sustainability. Predator and prey fish abundance is routinely measured through natural resource agency surveys in Lake Superior and diet data provide a mechanism to link the trophic levels and determine whether there are limitations in prey resources. However, diet data are not collected comprehensively by agencies because of funding limitations to analyze the samples. The Cooperative Science and Monitoring Initiative provides an opportunity for agencies to coordinate surveys and research through collaboration and provide a comprehensive status of the lake ecosystem. In order to effectively manage fisheries and the ecosystem, mapping trophic transfer through the ecosystem can help identify bottlenecks that can limit production, sustainability, and health of the system. Knowing the status of the food web will aid natural resource agencies with the management of fisheries by providing information on potential limitations or enhancements to production, particularly as it relates to the ongoing maintenance of a rehabilitated Lake Trout population.

The MNDNR Lake Superior Area Fisheries office initiated a cooperative project with anglers, called the PredatorPrey Project in 2020. The project is a cooperative effort to collect fish diets from Lake Superior by utilizing fish harvested by anglers throughout the year. COVID significantly limited the MNDNR's ability and time to market the project in 2020. That said, anglers were still able to provide over 70 carcasses from trout (Kamloops), salmon (coho and chinook) harvested in Minnesota waters. **WE NEED YOUR HELP COLLECTING FISH CARCASSES AND DIETS IN 2021!**

## What kind of samples do you want?

We need everything that is left after you fillet your fish - the head, spine, and all internal organs with all diet items. We will accept samples from *any species harvested in Minnesota waters of Lake Superior, at any time throughout the year.*

## What materials do I need?

*Fillet Knife <> Permanent Marker <> Storage Bags <> Cooler or Freezer (if storing at home).*

The Minnesota DNR will provide custom PredatorPrey Project plastic storage bags. You will need a fillet knife to clean the fish, a permanent marker to fill out information on each bag, and a cooler or freezer (if samples cannot be immediately dropped off at French River).

## How many anglers and samples do you want?

The more, the merrier! All anglers are welcome to participate and we will accept as many samples as we can get throughout the year. It doesn't matter how or when you catch the fish - we want them all.

## How do I participate?

Contact Nick Peterson or any other Lake Superior Area Fisheries staff (contact info below). You will be sent materials and assign a unique angler ID so information from your fish can be shared with you.

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## SAMPLE COLLECTION AND STORAGE INSTRUCTIONS

1. **FILL OUT ALL INFORMATION ON THE FRONT OF THE COLLECTION BAG.** Only one fish should be placed in each collection bag- all contents inside must be from the fish placed in each bag. It will be much easier (and cleaner) to fill out this information prior to fileting your fish – as fileting fish is a ‘slimy’ and ‘dirty’ process. An angler ID should already be written on each bag- if not, please contact Nick (info below). Please be sure that all the required information is complete on each collection bag. If you don’t have time to separate fish into separate bags- contact Nick and we will find a way to make it work for you.
2. **REMOVE FILETS FROM YOUR FISH.** Try not to puncture the stomach or internal organs. If internal organs are punctured (e.g., stomach was cut and diet items exposed), be sure that all stomach contents are put in the bag. Post processing of stomach contents will be easier to work up if stomach remains closed.
3. **PLACE ALL ‘PARTS’ INTO THE LABELED PLASTIC BAG.** Everything except for the filets should be placed into the plastic bag. This should include all parts or internal organs that are not kept for consumption. As stated above, only one fish should be placed in each bag and the contents from each fish must correspond to the ‘parts’ placed in each bag.
4. **CLEAN YOUR BOARD AND KNIFE.** It’s very important that your tools and board is clean before fileting another fish so that contents from one fish is not included with another.
5. **SAMPLE STORAGE AND DROPOFF:** Sample storage is very important. Samples should be put on ice or frozen immediately after processing the fish. Samples can decompose quickly, particularly in late spring and summer.
  - a. **DROP OFF YOUR SAMPLES AT FRENCH RIVER:** Samples can be dropped off at the French River Fisheries office (address below) immediately, and at any time of day. A cooler is chained near the entrance gate. Please send Nick an email ([nick.peterson@state.mn.us](mailto:nick.peterson@state.mn.us)) or text (515-351-9683) and let him know when you drop off samples.
  - b. **STORE ALL SAMPLES IN A FREEZER OR COOLER ON ICE:** If samples cannot be immediately dropped off at French River they can be stored in a freezer or cooler on ice. As mentioned above, samples can be dropped off at the French River Fisheries office (address below) at any time of day, and please contact Nick when you drop off samples.
  - c. **2021 COVID GUIDELINES:** Please place all samples in the cooler chained outside the entrance gate. Public is not allowed in DNR facilities at this time.

### QUESTIONS OR WANT TO SIGN UP?

Nick Peterson  
Migratory Fish Specialist  
Minnesota DNR, Lake Superior Area  
Nick office: (218) 302-3272 (leave a message)  
Nick cell: (515) 351-9683  
Lake Superior Area office: (218) 302-3264  
Email: [nick.peterson@state.mn.us](mailto:nick.peterson@state.mn.us)

### SAMPLE DROP OFF LOCATION

Lake Superior Area Fisheries Office  
5351 North Shore Drive  
Duluth, MN 55811  
Office: (218) 302-3264

***\*DO YOU KNOW OTHER ANGLERS WHO HARVEST FISH IN MINNESOTA WATERS OF LAKE SUPERIOR? ANGLER PARTICIPATION IS CRITICAL TO THE SUCCESS OF THIS PROJECT. FEEL FREE TO SPREAD THE WORD AND HAVE THEM CONTACT NICK OR LAKE SUPERIOR AREA STAFF!***