



Sharing Knowledge Catching Memories

by Keith Ailey



For students in his spring semester class, lessons in this unit focus on the history and lifecycle of Superior's migratory rainbow trout, as well as the science behind their connection to the Great Lakes ecosystem. Of course, the highlight is always the experience of learning how to find, catch, and safely release these amazing fish.

Prior to the field trips, students are given a brief overview of the lifecycle of a Lake Superior steelhead. These migratory rainbow trout were originally from the Pacific Ocean and were first introduced to the Great Lakes in the late 1800s. Having successfully adapted from salt water to fresh water, steelhead have now established wild, self-sustaining populations throughout the Great Lakes. Each spring, adult fish return to the same river in which they were born to spawn and perpetuate their existence as a species.

As part of a small team of North Shore Steelhead Association volunteers that gather scale samples as part of a mark-and-recapture program to monitor the health of migratory runs in several rivers feeding Lake Superior, I have been fortunate to learn a lot about our steelhead populations over the past couple decades. So, our school fishing unit starts with the students learning about the population monitoring program and why it is so important to have these long-term data sets on different North Shore rivers. Then, for our field work, we are lucky to have McVicar Creek within a couple minutes walking distance, as it becomes our classroom for several days each spring.

McVicar Creek is a small stream with numerous barriers including the treacherous Court Street falls, several man-made weirs, and a gauntlet of anglers. These obstacles cannot prevent the mighty steelhead from reaching their upstream spawning grounds however, and a healthy run returns each year, likely sustained with the help of a one-fish possession limit and the preference of most anglers to release their fish.

Last spring, on each fishing trip we made with the Phys Ed class, we were successful in catching steelhead. This provided the opportunity for us to demonstrate how to safely handle them without removing them from the water, other than lifting them for a couple seconds for a quick photograph.

In addition to studying the reproductive journey of these fish, the students were also taught to identify and avoid shallow spawning areas, and how to instead focus their angling on deeper runs where pre-spawn and post-spawn fish can be caught ethically.

Learning opportunities like these are valuable for teenagers as immersing them in these experiences helps to deepen their understanding of the world around them. For young adults at Superior Collegiate, the experience of fishing with their classmates is something uniquely rewarding and especially memorable.

Keith Ailey is a Visual Arts teacher at Superior Collegiate & Vocational Institute where he volunteers his time with the Outdoors Club and Travel Club as well as the cycling, skiing and XC running teams.

On a quiet morning at the river's edge, a fishing rod in the hands of a young adult becomes more than just a tool for catching fish. It becomes a bridge between generations. Time spent teaching young people how to tie a knot, to read the water, and to catch a feisty steelhead is about far more than just landing fish. It is about patience, stewardship, passing down knowledge and sharing good fishing ethics. When fishing with youth, mentors have the opportunity to inspire confidence, connection, and a lifelong appreciation for the outdoors.

As a high school teacher, I feel there is nothing more rewarding than engaging students in ways that make learning meaningful and fun. Beyond the daily lessons, finding a way to inspire a life-long quest for knowledge is the ultimate goal. At Superior Collegiate and Vocational Institute in Thunder Bay, I try to accomplish this by collaborating with Physical Education teacher Jerry Nichols on a very special unit focused on Lake Superior's steelhead.

Black Bay Walleye Regulations 2026

by Tom Whalley

Anglers must note that there are new regulations for walleye in Black Bay for 2026 and forward.

After a multi-year study and review of the current walleye stock status by the Ministry of Natural Resources, it has been determined that the population of walleye has grown to a stable level that appears to be maximized, given the available spawning and rearing habitat in Black Bay and tributary streams. MNR, in consultation with the Black Bay Working Group of Fisheries Management Zone 9, has determined that a single (but restrictive) harvest regulation for the entirety of Black Bay is an appropriate first step for re-opening the whole Bay to limited walleye harvest.

Anglers will now be allowed to fish for walleye north of Bent Island, which has been closed to walleye harvest for some 15 years. This means the entire bay will now be open for walleye, with a 2 fish limit on a sport license, short harvest season (July 1st to December 31st) and a slot size length restriction between 40 and 50 cm (14.75 inches to 19.7 inches). There will be no ice fishing for walleye permitted.

The Working Group has been assured that the 2026 regulation is only a first step in re-opening harvest in this fishery, which is to be closely monitored to gauge angling effort and harvest. The intention is to further liberalize harvest opportunities if it can be demonstrated that the now maximized population can withstand additional harvest pressure.

As we are members of the Black Bay Working Group, NSSA will continue to encourage more liberal walleye regulations in Black Bay that are compatible with maintaining a healthy but multi-species fishery. It is our commitment that we will demand this interim walleye regulation be revisited as additional angling effort and harvest data is acquired.

Stay tuned!

UPDATE

Current River Migration Corridor Improvement

Modifications to the fish ladder were completed over the summer of 2025. A total of 11 subsurface openings were created in the internal walls of the fishway to allow an easier route during migration. The other modification was the installation of higher cell walls in the lowest cells which will increase the attraction flow to help fish identify the entrance to the fishway.

Fish sensors and cameras were installed in the fishway in late September of 2025 as a trial of the system and for us to learn more about how to interpret the results if any fish was to try and use the fishway in the fall.

We are very happy to report that 33 fish were documented as moving upstream, while there were 11 moving downstream. To our surprise, the cameras captured video of only Brook Trout moving through the fishway. That's not to say that Rainbow Trout could

have been among the 33 documented migrations as the cameras encountered some technical issues after the first week of operations, as algae and sedimentation on the lens of the lower camera made visual identification impossible. The camera in the upper cell also had issues related to excessive bubbling masking the images.

While we couldn't rely on the cameras results, we could review the electronic signals for each 'event' recorded.

continued on back page



NEW PROJECT

McVicar Creek Plunge Pool Restoration Project

The NSSA is seeking financial support from various government agencies for assistance in recreating the plunge pool below the Court Street falls in McVicar Creek.

For those not aware, the plunge pool was part of the modifications made by the NSSA in 1985. The NSSA modified the creek bed to eliminate a long slide, which under most water levels, was a barrier to migration. The modifications resulted in the creation of a falls with a plunge pool. The plunge pool was subsequently improved by cabling and anchoring 6 boulders together below the falls which raised the water level to approximately 2 feet in depth.

By 2009 some of the cables had rusted and broken allowing some of the boulders to be moved by the ice and flows thereby destroying the pool resulting in a more difficult migration corridor. The NSSA successfully recovered the boulders and replaced them back in place using new cables. (see the attached photo)

In the spring of 2025, after 16 years, the plunge pool was once again observed to be less effective. The cabling had rusted and

failed resulting in several of the boulders being displaced.

The proposed modifications to rebuild the plunge pool involves using the same boulders (where possible) and anchoring them in back in place using tension ties. Holes will be drilled through the boulders and 6-10 feet into the bedrock, and a rod placed into the hole and grouted in place, with a bolt on top of the boulder tightened to prevent any movement.

The proposed project has been submitted to the DFO for review and, if it is approved, permits will be sought from the MNR and the LRCA. We are hopeful of a positive response to our requests for agency funding, so that the work can be completed in the summer of 2026.



The Status of Wild Steelhead Populations in Ontario Waters of Western Lake Superior (2026)

by Jon George

Figure 1 uses the Neebing River’s adult population to illustrate how adult steelhead spawning migrations fluctuate in streams throughout Western Lake Superior. Stream environmental variables such as flows, temperatures, and winter severity relate to changes in juvenile abundance from year to year. Once juveniles leave the stream, the variables in the lake such as competition and predation can further influence juvenile abundance, impacting future population size. Strong survival of juveniles 2013 and 2016 created the large adult populations observed in many North Shore streams between 2018-2021. The population declines observed since 2021 can be related to poor juvenile survival from 2019 to 2021. The 2022 year class (age three in 2025) appears strong in Thunder Bay tributaries which is encouraging for the future.

Figure 1.

Steelhead, Neebing River

Adult Population Size 2013 to 2024

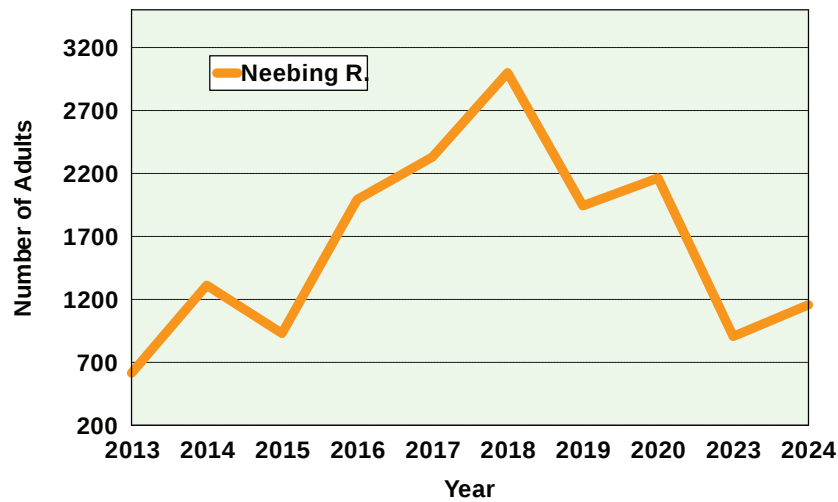


Table 1—Status of Steelhead Populations in Western Lake Superior Tributaries.

Tributary	Repeat Spawners	Maiden Spawners	Population Size	Status
Whitefish River (Thunder Bay)	49%	51%		Stable population
Neebing River (Thunder Bay)	63%	37%	1,157 (± 698)	High repeat spawners
McIntyre River (Thunder Bay)	76%	24%	4,413 (± 2,593)	High repeat spawners
McVicar Creek (Thunder Bay)	50%	50%	1,596 (± 1,513)	Marginal recruitment
Blind Creek (Thunder Bay)	50%	50%		Small population with low recruitment
Birch Beach Creek (Thunder Bay)	56%	44%		Stable population
McKenzie River (Thunder Bay)	70%	30%	398 (± 342)	Small adult population
Portage Creek (Thunder Bay)	78%	22%	86 (± 57)	Small, fragile population, very low recruitment
Jackpine River (Nipigon Bay)	82%	18%		Marginal, low recruitment
Cypress River (Nipigon Bay)	72%	28%	713 (± 468)	Marginal, low recruitment
Steel River (Nipigon Bay)	63%	37%		Appears healthy

The adult population that presently exists on the North Shore tributaries of Lake Superior appear close to their normal carrying capacity. A large number of productive repeat spawners presently exists in most adult spawning populations. This has the potential for strong year classes in future years if optimum conditions exist in both the river and lake environments.

Additional Notes

Black Bay tributaries i.e. Portage Creek, have poor adult runs and low recruitment likely resulting from the dominance cool water predatory species.

In recent years we have documented a semi resident rainbow trout population and a summer run steelhead population in some of the larger tributaries.

2026-27 Officers and Directors

President
Thomas Whalley

Vice President
Terry Kosolowski

Treasurer
Frank Edgson

Secretary
Michelle Willows

Directors 1 Year
Randy Beamish
Jon George
Mike Stachejczuk Jr.
Jan Wieckowski
Matt Beda
James Edgson

Directors 2 Year
Russ Desjardine
Ray Dee
Lindsey Kosolowski
Jon Tost
Scottie Redin
Connor Lybarger

LRCA Culvert Assessment

by Michelle Willows

The Lakehead Region Conservation Authority (LRCA) conducted a Culvert Fish Passage Assessment for the Municipality of Neebing, focusing on evaluating culverts on primary, secondary, and tertiary waterways and wetlands across the five townships of Neebing: Scoble, Pardee, Pearson, Crooks, and Blake. The project aimed to identify culverts that may hinder the movement of migrating freshwater fish and to understand current connectivity issues between tributaries and Lake Superior. Connectivity of streams and watersheds can have a significant impact on fish population dynamics and has been documented to cause declines in freshwater diversity. Not only does habitat fragmentation lower spawning success rates, but perched culverts can prevent access to refuges and overwintering habitat.

A total of 152 culverts were assessed using a rapid fish passage assessment, which considers five key metrics: degree of embedment, outlet drop, culvert slope, and stream-to-width ratio. The LRCA also incorporated the same field parameters used in studies conducted by the Department of Natural Resources and Superior Streams to maintain data consistency along the North Shore of Lake Superior.

The data derived from this study will be shared with the Municipality of Neebing and with like-minded agencies to support coordinated planning, prioritization of restoration efforts, and data-driven decision-making. The LRCA intends to undertake similar studies across all Townships and Municipalities within the Authority's area of jurisdiction. The long-term objective is to secure funding to address culverts that restrict connectivity between tributaries and Lake Superior, in collaboration with partner organizations such as the North Shore Steelhead Association. The LRCA looks forward to sharing the study results in spring 2026.



Current River *Continued from page 2*

A review of the graph of each 'event' confirmed if a fish was encountered. Initially, 'events' were being recorded every 10 seconds, meaning that there were over 8,000 'events' per day that had to be reviewed. It was determined that these 'events' were caused by bubbling in the water, and this needed to be resolved.

With the assistance of the City's staff, we quickly determined that by increasing the flow rate to between 1.3 -1.5 Cubic Meters per Second (CMS), the bubbling in the upper cell was minimized and the number of events being recorded dropped to a manageable

level. The increased flow rate should also eliminate or delay the algae or sediment buildup on the lower sensor and camera.

Overall, the sensors and cameras performed as expected, and with the changes to flow rate we should be in a good position to finally have some answers regarding the Rainbow Trout population.

It is our plan to operate the fish counters for the next four seasons, in order to capture a better understanding of fish migration through the Current River Fishway.

Join The NSSA! Membership is Free



The North Shore Steelhead Association (NSSA) was formed on January 13, 1973, as a non-profit organization concerned with the conservation and preservation of fisheries in the tributaries of Lake Superior.

NSSA's primary mission is the protection and enhancement of the North Shore migratory Rainbow Trout (Steelhead) fishery, however this has evolved to include all coldwater species of the Lake Superior Watershed.

The NSSA's constitution stresses public education and close collaboration with authoritative bodies (M.N.R.F., L.R.C.A., and North Shore Community Councils) as strategies for conservation.

Our financial base is developed exclusively from fundraising and donations from supporters. These activities not only generate capital for our projects, they also heighten public awareness of the need for environmental protection of Lake Superior's North Shore.

The objects of the NSSA are the conservation and preservation of the coldwater fisheries of Lake Superior and Lake Superior watershed (Ontario).

This includes activities and programs that promote and achieve environmental preservation and enhancement, such as:

- Lake and stream rehabilitation
- fish habitat restoration and enhancement
- activities to combat invasive species
- data collection and analyses (including genetic, DNA, tissue, cell, molecular)
- fish population monitoring (sampling, aging, tagging, counting), restoration, and
- associated scientific research for the purpose of understanding and enhancing fish populations and habitat.

The NSSA also engages in awareness campaigns, programs, and signage consistent with, and for the purposes of pursuing, its objects.

The NSSA may from time to time make donations to other organizations whose activities are consistent with and beneficial to the NSSA's Objects.

Sign up at
www.northshoresteelhead.com



Follow us on social media:
[@northshoresteelhead](https://twitter.com/northshoresteelhead)



NORTH SHORE
Steelhead
ASSOCIATION

North Shore Steelhead Report is a publication of the North Shore Steelhead Association
Graphic Design • Jay Rutland
Printing • Lakehead Printing
The NSSA welcomes your contributions, opinions and ideas.