



NORTH SHORE Steelhead REPORT

A North Shore Steelhead Association Publication
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A Springtime Tradition

by Keith Ailey

In Thunder Bay, we have a springtime tradition. As the snow melts away and the water starts flowing again, steelhead anglers look forward to meeting up with old friends down at the river. For many of us, the call of a rushing river provides the perfect excuse to grab the fishing rod, get outside and see our friends after a long winter.

Since my childhood, the annual spring steelhead run has been something to look forward to through the cold winter months. Chasing these migratory trout and exploring the urban rivers with the other neighbourhood kids was where my passion for angling was born.

More than anything else, I still appreciate the chance to catch up with old friends on the river each spring, and to hear what is new in their lives and how their own children are doing. As we fish in the same rivers we did when we were young, I often think back to where it all began.

Back in elementary school, I caught my first steelhead by accident. I was fly fishing for the small resident trout in an urban river when a hungry post-spawn steelhead grabbed my hand-tied fly, raced around the pool, and then exploded into the air in a fantastic leap. From that moment on, chasing steelhead has been a true addiction.

I was lucky to have an elementary school classmate, Bernie, who shared a common love for these migratory rainbow trout. He was a more experienced angler than me, and much of my early knowledge came from him. Before the internet gave away all the secrets, finding someone who knew how to catch a steelhead



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was the key to being successful when chasing these elusive fish. Passing on knowledge from his father, Bernie taught me how to snell hooks, make yarn flies, tie roe bags, pour lead sinkers and how to construct a dropper rig that would greatly reduce the number of break-offs and re-tying required due to the infinite snags on the rocky river bottom.

Last May, thirty years after we last fished steelhead together, I was reunited with

Bernie on the river. Bernie and his 12-year-old daughter Natali were walking up the riverbank, looking for a place to fish. I invited them to share my spot and was immediately impressed with young Natali's concentration and determination. Using a hot pink yarn fly, her dad's old favourite, she was quickly rewarded with a few hook-ups. The high water made landing these feisty fish a real challenge, but Natali kept at it and, before long, she landed a gorgeous steelhead. We photographed the fish, and she quickly released it back into the river to complete its spawning journey.

Natali, who started fishing for walleye when she was just five years old, says her favourite part of spring steelheading is "being outside around all the nature and hearing the water and the birds singing." But she adds, "most important is spending time with my dad and, of course, landing a couple fish."

Bernie says having his young daughter on the river beside him brings back fond memories of the times his father and grandfather would take him out. Mostly, he appreciates the chance to pass on the skills he learned as a youngster, as well as the opportunity to create new memories with Natali. For this, he says he is grateful to the past, present and founding members of the North Shore Steelhead Association for their hard work and dedication to maintaining a quality fishery for his daughter and the next generation of anglers to enjoy.

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.

Narrow Leaved Cattail

by Michelle Willows

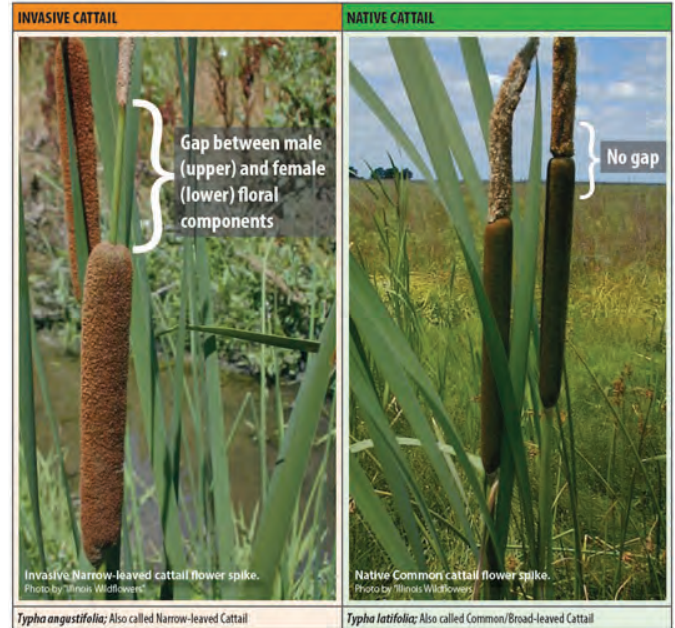
Did you know there are two different species of cattail in our region? We have both a native species of cattail (Broad-leaved Cattail; *Typha latifolia*) and invasive (Narrow-Leaved Cattail; *Typha angustifolia*). Invasive Narrow-leaved Cattail (NLC) is an aggressive species known to limit biodiversity in wetlands, producing dense rhizome mats and a thick litter layer that outcompetes other flora. Given the opportunity, this species will produce monocultures that eliminate important local habitats for migratory birds (specifically waterfowl), amphibians, fish, invertebrates, and more.

The easiest way to tell the two species apart is by the gap between the upper (male) and lower (female) floral components of the flower spike. The invasive cattail has a gap that is approximately ½-3 inches in size, whereas the floral components of native species are adjacent to each other or are separated by a distance of ½ inch or less. Another easy ID feature is the leaf

width. Leaves from the invasive species are 3-12 millimeters wide, whereas the Broad-leaved Cattail has a wider leaf ranging from 5-29 millimeters.

The LRCA is currently monitoring stands of NLC located on the Neebing-McIntyre floodway and in Hurkett Cove. Two different management approaches: manual removal and herbicide treatment (Habitat Aqua) are being evaluated.

Check out the LRCA's website for more information at www.lakeheadca.com



The Spiny Waterflea

by Michelle Willows

In 2023 during the LRCA's annual water quality monitoring program, staff encountered Spiny Waterflea (*Bythotrephes longimanus*) at two Conservation Areas on the North Shore of Lake Superior (Mission Island Marsh and Silver Harbour). Spiny Waterflea is an invasive zooplankton from Eurasia, introduced to the Great Lakes by ballast water from ocean-going ships.

Research suggests that the invasive species can threaten the diversity of native zooplankton, showing a 30-40% decline in locations with established Spiny Waterflea. The reductions in native zooplankton inherently affect other trophic levels, specifically for fish that depend on zooplankton as a dietary staple.

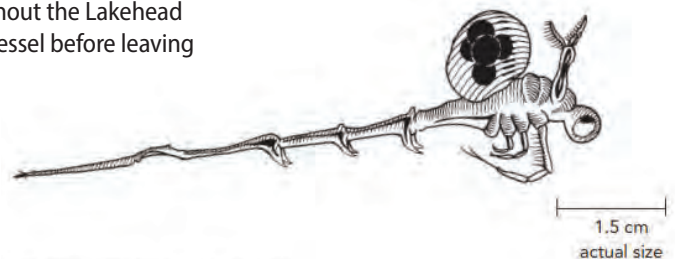
You may have observed their jelly-like masses on your fishing equipment if you fish by Caribou Island, Mary's Island, or Pie Island. Spiny Waterflea is affecting recreational and commercial fisheries by fouling fishing equipment, commercial netting, and trawling lines. Currently, there are no known methods or controls for eradicating the Spiny Waterflea once they have been introduced to a water body (ex. Pesticides).

Remember to Clean, Drain, and Dry your boat and fishing equipment to prevent the spread of Spiny Waterflea throughout the Lakehead Watershed. Inspect your vessel before leaving

or launching, specifically bait buckets, live wells, and bilge waters.

It is recommended to rinse all recreational equipment with high pressure (>250 psi) or hot (50°C) water or let it dry in the sun for 5 days.

Want to learn more? Check out www.invasivespeciescentre.ca



Spiny waterflea line drawing.

Drawing: Michigan Sea Grant Program, Ontario Federation of Anglers and Hunters

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The Status of Wild Steelhead Populations in Ontario Waters of Western Lake Superior (based on data from 2023)

by Jon George

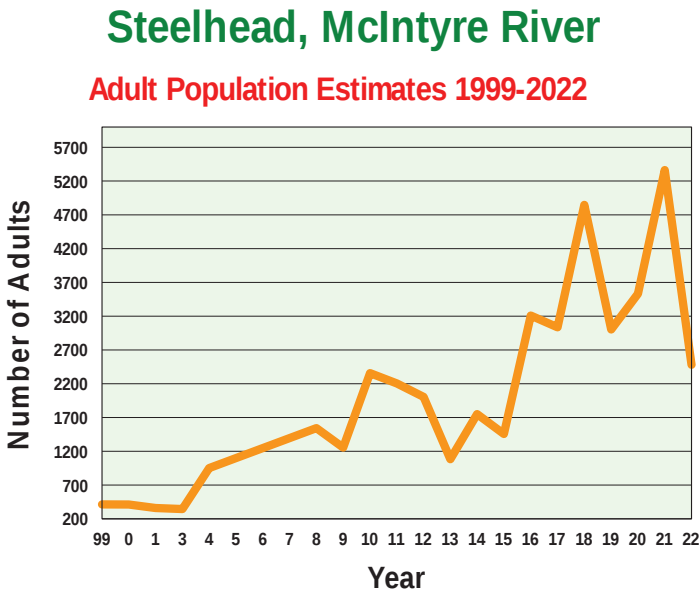
The status of eleven western Lake Superior adult steelhead populations is illustrated in Table #1. The high percent of repeat spawning (>70%) in most of these tributaries is a reflection of a high annual survival rate and low recruitment or maiden spawners.

A healthy Lake Superior adult steelhead population maintains a 50% repeat spawning which in turn relates to 50% new or maiden spawners.

The low numbers of maiden spawners in the spring of 2023 reflects of poor survival of juvenile steelhead. This is a trend that has been seen across the North Shore over the past number of years (2017-2023).

Fluctuations in a wild adult steelhead population

Figure 1 uses the McIntyre River population size to index fluctuation in abundance over the past twenty years. The adult population size has averaged been three and four thousand over the past eight years. Strong survival of juvenile steelhead to the adult stage was the result of ideal environmental conditions during 2013 and 2016. The decline in the adult steelhead population in 2022 can be related to poor survival of juvenile steelhead over the past several years. This appears to be a general trend throughout western Lake Superior tributaries (Table #1). This is most likely related



Note: 1999 to 2004 (Counting Fence), 2008 to 2022 (Petersen est.)

to poor environmental conditions for juvenile steelhead. Poor environmental conditions for juvenile steelhead include things such as prolonged high-water events in streams (i.e. spring 2021 and 2022) and prolonged periods of low flows (i.e. summer and fall 2023)

What to expect in the next few years

If the present trend of low recruitment continues, adult steelhead populations in Western Lake Superior will continue to decline. The McIntyre River shows population

fluctuations generated by both good and bad years of natural reproduction. Large spawning populations that are present in most streams have the capability of producing strong year classes similar to 2013 and 2016, if environmental conditions improve. This highlights the importance of maintaining large adult steelhead population size which supports a fishery that experiences variable environmental conditions annually.

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

Tributary	Repeat Spawners	Maiden Spawners	Population Size	Status
Whitefish River (Thunder Bay)	64%	36%		Stable Population
Neebing River (Thunder Bay)	91%	9%	2133 (+- 1169)	Very Low Recruitment
McIntyre River (Thunder Bay)	84%	16%	2481 (+- 915)	Low Recruitment
McVicar Creek (Thunder Bay)	71%	29%	1462 (+-714)	Marginal Recruitment
Blind Creek (Thunder Bay)	72%	28%		Marginal Low Recruitment
Birch Beach Creek (Thunder Bay)	59%	41%		Stable Population
McKenzie River (Thunder Bay)	63%	37%	222 (+-104)	Small Adult Population
Portage Creek (Thunder Bay)	90%	10%	182 (2021)	Very Low, Minimal Recruitment
Jackpine River (Nipigon Bay)	71%	29%		Marginal Low Recruitment
Cypress River (Nipigon Bay)	78%	22%	864 (+-117)	Marginal Low Recruitment
Big Gravel River (Nipigon Bay)	76%	24%		Marginal Low Recruitment

From the President

by Tom Whalley

Spring 2024 is proceeding at an unexpectedly quick rate; the weather has been abnormally warm and we have had very little snow, the least I have ever seen in my nearly 60 years. The snowmobiles have mostly stayed in the garage this year, and the skis have had limited use. For those of us in the angling community, this is cause for concern.

As I write this, it appears that the spring melt (known as the freshet) will be very minimal this year. Yes, it may rain for forty days and nights, but that is yet to be seen. So far there is little water in the wilds to bring up stream levels and bring in the spring run of Steelhead. Steelhead will come, of course, but low water levels mean they may not be able to migrate to the headwaters of many streams, which limits the potential for a successful spawn and maximum production of juvenile steelhead. Spring precipitation also helps ensure that aquifers are fully recharged, which can contribute to the maintenance of summer flows that support this year's hatch.

This is a year where we will need production, as the last few summers have been very dry across the Lake Superior drainage, and few juveniles have survived to become the adult gamefish we prize so greatly. As well, high water levels allow adults many more areas to hide and hold as they advance upstream, making the angling experience more challenging and battles more epic as we search out our quarry. Simply put, low water just doesn't excite most anglers as much as moderately high flows do. So, as we get ready for spring angling, we wait and hope that we may see late snows and ample spring rains to bring rivers up to levels that steelhead, and we anglers, require and enjoy.

Since we cannot control the rains, hope is our best friend until the rain begins to fall. When they do, the life cycle of steelhead - and steelhead anglers - can continue.

So... here's hoping for rain!

Tight lines...

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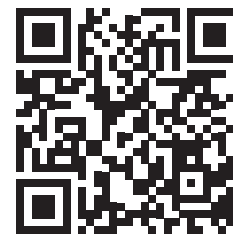
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Join The NSSA! Membership is Free



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



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