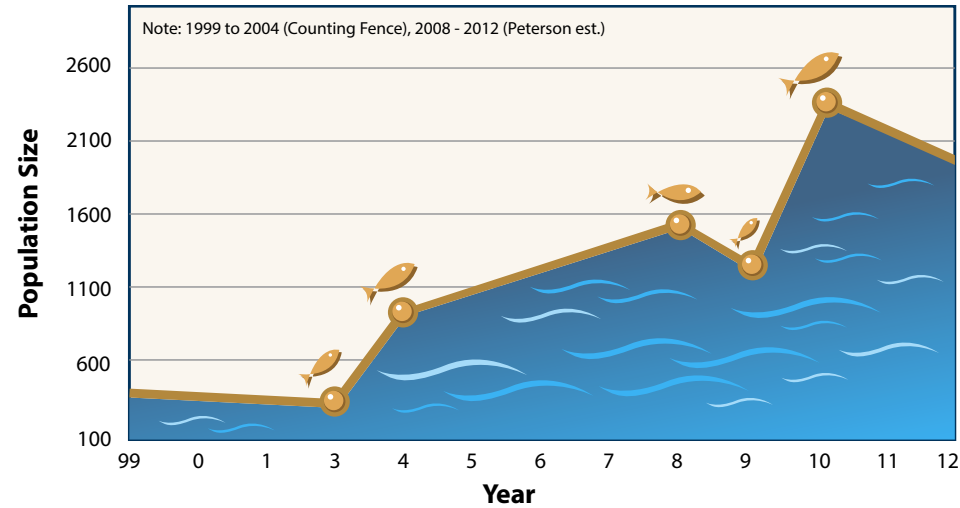


## McIntyre River Rainbow Trout Population Study 2012 Results

Four members of the North Shore Steelhead Association (Randy Beamish, Terry Kosolowski, Wes Bender and Keith Ailey) have been conducting an in-depth population study on adult steelhead in the McIntyre River, Thunder Bay (using the Portage Creek design). Over the past five years this group has been biologically sampling and fin clipping adult steelhead during the spring spawning migration. This has enabled managers to estimate the population size (see attached graph) and the life history characteristics of this heavily fished urban stream. The information collected can be used to index the health of steelhead populations throughout Thunder Bay. Thanks to this dedicated group, a total of 300 to 400 adult steelhead have been fin clipped and sampled each year. The data also illustrates the value of the strict regulations of one fish over 69 cm enacted in 1999. In 2013, 243 fish were captured and their scales analyzed in 2013.



## Current River Water Management Agreement



Current River Spring 2012.

Where are we with our request for an amendment to the existing Water Management Plan? An official request for an amendment was submitted by the North Shore Steelhead Association to the Ministry of Natural Resources on September 22, 2010.

The Ministry of Natural Resources is waiting for a new Permit to Take Water to be developed which would alter the current priorities for the use of the water before rewording the Water Management Plan.

Despite the efforts of the Ministry of the Environment to develop a new Permit to Take Water which would see a small amount of water allocated on a 24 hour/365 day a year basis to the fishway, the permit has yet to be approved. The permit was posted on the Environmental Registry on October 4, 2012 and the comment period closed after 60 days. We have been told that it will be reposted in the near future.

The NSSA will continue to advocate for the right of water for the purpose of maintaining corridors for migratory species on the Current River.

## 2014 - 2015 Offices and Directors



Photo courtesy of Darren Wright, Steelhead House, Terrace, BC

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Lakehead Printing

**The NSSA welcomes your contributions, opinions and ideas.**

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# NORTH SHORE Steelhead REPORT

A North Shore Steelhead Association Publication

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## Catch and Release Steelhead for the Kids

By Keith Ailey



Photo courtesy of Darren Wright, Steelhead House, Terrace, BC

When I was a kid, the limit on steelhead was five, but the thought of catching so many steelhead was about the craziest thing we could ever imagine. However, two decades later I'm back fishing the same watershed I did as a teen and, with my young daughters beside me, we are catching "crazy" numbers of fish on a warm spring day.

The steelhead population in this particular river has quadrupled in recent years—likely due to the one-fish limit and a twenty-seven-inch minimum size restriction that essentially makes this stream a catch-and-release fishing opportunity for anglers. While the quality of fishing suggests the numbers of steelhead in this river have increased dramatically, we also have the data to prove that assumption correct.

Under the guidance of Jon George of the MNR Science and Information unit, four members of the North Shore Steelhead Association (Randy Beamish, Terry Kosolowski, Wes Bender, and myself) participated in a scientific study to determine the health of the population of steelhead in an urban river that flows into Lake Superior. For five consecutive springtime spawning migrations, the four of us, armed with our biological sampling permits, would catch as many steelhead as our busy lives allowed, and sample each fish by measuring length, determining gender, and collecting scale samples. In addition, a unique fin clip was applied each year. The method of estimating population size in this study is known as the "Peterson Population Estimate". It is based on the number of fish marked with a fin clip in year one, multiplied by the total number of repeat spawners caught in year two, divided by the number of fin-clipped fish recaptured in year two.

### Some of the findings and observations we made during the study:

**1** Each spring, the four of us caught more than 10% of the estimated population of the river (with the 411 captures in 2011 probably being closer to 20% of that year's total number of fish). This staggering statistic indicates that steelhead are especially vulnerable to overharvest by anglers and they should be carefully protected.

**2** Unlike Pacific salmon, which die after spawning, the scale samples collected here indicate that Lake Superior steelhead are living up to eleven years and making annual spawning migrations up to eight times before they die.

**3** Steelhead with fin clips from four separate spawning runs have been caught by our crew—indicating that catch and release works, even when fish are clipped and sampled, as long as the fish are handled carefully and kept in the water while they are unhooked.

From the sound scientific data collected in this study, we can see that properly managed wild steelhead can buffer poor environmental conditions, even in an urban river with heavy angling pressure. Since this study began in 2008, the adult fish which migrate this river each spring have survived an annual spawning run through a gauntlet of anglers, and a terrible drought that almost completely stopped the flow of water in the spring of 2010. Meanwhile, the juveniles who spend the first year or two of their lives in the river had to survive droughts, floods, predators, and a bitterly cold and long winter in 2010/11. Yet, with the absence of angling mortality, our wild steelhead still manage to survive and even prosper without the need to weaken the gene pool with stocked fish. That is great news for our kids.

### Inside This Issue

Birds of a Feather Flock Together	2
McIntyre River Bank Stabilization Project	2
George Creek - Centennial Park Project Progress Report	3
McIntyre River Rainbow Trout Population Study 2012 Results	4
Current River Water Management Agreement	4



## Birds of a Feather Flock Together

Whoever coined the phrase 'birds of a feather flock together' certainly had a good bead on things. Bikers ride bikes together, runners run together and artists gravitate to each other, just as Jays share the same tree, and Mallards the same pond. True in many walks of life, this idiom is never more true than among anglers.

For many of us, our earliest (and longest lasting) friendships center on fishing and the passions that the pastime fuels. It may have been a chance meeting at the local creek, a gathering on a beach at the summer cottage, or a meeting of an organized group which brought angling friends together. Regardless of the inspiration, we anglers seem to find each other, and common interests bind us as the years move on.

For myself and for many, that common bond is the fraternity of Rainbow Trout anglers, or 'Steelheaders', as we are known. 'Steelheader' is an apt moniker, as it certainly takes a hard head (I prefer 'strength of character') to bear the trials of spending early spring 'onions deep' in cold water, waiting for silver to arrive. It is times like these that

separate the wheat from the chaff, for the less committed will tend to drift on to other, dryer (and warmer) pursuits, while the diehards hang on in anticipation. By the fire, on those sometimes cold and rainy days, true friendships are sealed, those that will sustain us for a lifetime.

Life is complicated these days, and change ever present. Many of us have scattered across the country in pursuit of career or family, and may have drifted from the fold for a time. But friendships prevail, and every spring the phone jumps to life and the email rolls in, as fellow anglers make their plans to return to the north shore of Superior. Like waking from a long sleep, we need only shake off the cobwebs and get ready for a new day on the river, with our brothers of the campfire.

This kinship was brought home to me this past year, when a number of us gathered at a fellow angler's home to mark the passing of a family member of one of our Steelheading fraternity. Although a sad occasion, the conversation turned to the promise of spring. Looking around the

room, I could see the faces I had seen across the river through the last 36 years: professionals, businessmen, tradesmen and labourers, here to share the evening with our friend and guest of honour. He is the one among us who has made the sacrifice and commitment to 'Live the Dream', and is now the owner of a B.C. Steelhead lodge and guide service. This night, as in years gone by, we were drawn together by Steelhead, and the memories forged across the campfire on those cold spring days, waiting for silver to arrive.

No place I'd rather be, I thought, than here with these 'Birds of a Feather'.

*Tom Whalley*

Tom Whalley, President, NSSA



## McIntyre River Bank Stabilization & Stream Habitat Project

The NSSA has long been concerned with the continued erosion and loss of cover on the section of the McIntyre River, just above the Central Avenue crossing. It is located on property co-owned by the Thunder Bay Country Club, and the City of Thunder Bay and is just below Lakehead University making this area a perfect urban showcase to continue restoring local fish habitat while providing an ideal outdoor classroom to highlight the need for protection of urban fisheries. Talks began in 2010, however, were not followed up, due in part, to a bank stabilization project on the downstream section of river which the LRCA had initiated, and to which the NSSA committed funds to ensure a fish friendly design was incorporated into the final design.

Discussions with the TBCC in the summer of 2013 lead to an agreement to work together to accomplish this project. With the announcement of a new funding source by the Department of

Fisheries and Oceans which focused on bank stabilizations, an application to the Recreational Fisheries Community Partnerships Program was submitted. An application has also been submitted for funding to the Canada-Ontario Agreement respecting the Great Lakes Ecobasin fund.

The submissions for funding were based on the survey work completed by Hatch Mott McDonald and a preliminary design by Dave Holla Engineering completed in 2013. Dave Holla was responsible for designing a number of similar projects as part of the award winning Manitoulin Streams program.

The current design allowed for the development of two projects; one project for the bank stabilization and re-vegetation of the areas above and below the Central Ave crossing, and the other project for the in-stream work including

such features as vortex weirs and wing deflectors to slow and redirect the river flow.

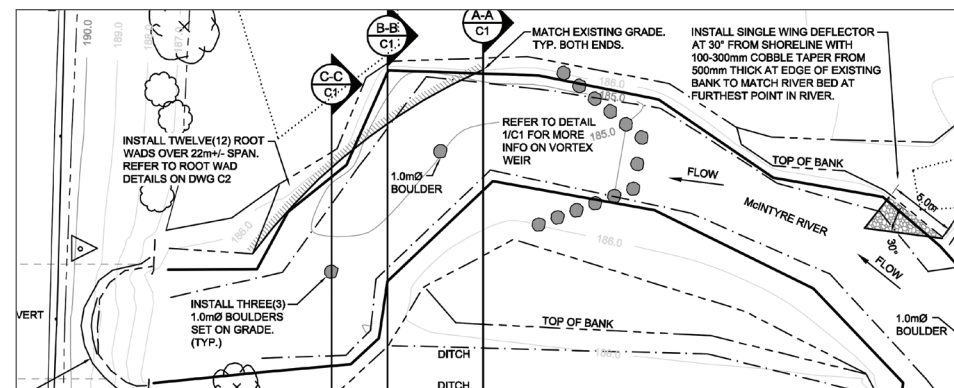
As an important project partner the Thunder Bay District Stewardship Council have provided funds and have submitted an application for funding for the in-stream works and revegetation project to the Land Stewardship and Habitat Restoration program.

The project continues to gain momentum by working with the City of Thunder Bay-Parks Division and Lakehead University to expand the scope of the works and increase the benefits to the community.

While we await word on the success of our applications, arrangements are being made to bring Dave Holla on a site visit this spring to put the final touches on his engineered design. Keep up to date on all the developments by looking at updates on the NSSA website or Facebook site.



Photo of the slumping banks on the 5th hole of TBCC



Preliminary design by Dave Holla

## George Creek Centennial Park Project

Last summer the NSSA led the rehabilitation of a degraded Brook Trout nursery stream located in Centennial Park. Approximately 80m<sup>2</sup> of previously altered and unproductive habitat was restored through the construction and implementation of a natural channel design, which saw a series of three pools and riffles constructed and in-stream habitat features, such as cedar roots and cover added to the stream. A healthy riparian buffer area was created by planting, over an area of approximately 400m<sup>2</sup>, a variety of herbaceous shrubs, and tree plantings to provide additional habitat while reducing the impacts associated with increased nutrient inputs, providing shade and addressing general water quality concerns.

The project was funded by the North Shore Steelhead Association, Thunder Bay District Stewardship Council, Ontario Federation of Anglers and Hunters, Province of Ontario, Lakehead University, Department of Fisheries and Oceans, City of Thunder Bay, and the Government of Canada.



George Creek after.



George Creek before.

Due to funding uncertainties this project was projected to be completed in two phases: Phase 1 would deal with the section between the culvert and the railroad track and be completed by the end of 2013, while Phase 2 would see the lower 20m of the creek rehabilitated in the summer of 2014.

Phase 1 of this project was completed in the fall of 2013, with the exception of the installation of signage (to be done this spring when the ground thaws sufficiently for the signs to be installed).

Phase 2 will see the lower section of the creek rehabilitated to ensure fish passage from the main river under varying flow conditions allowing for increased accessibility and benefits. This work is scheduled to take place in August of 2014. Application for funding for Phase 2 has been submitted to the Great Lakes Sustainability Fund with the hopes that the project will be completed in 2014 as planned.

## Boulevard Lake Fishway Redesign



Boulevard Lake Fishway.

With the eventual agreement on a new Permit to Take Water which would see water allocated to the fishway 24 hours/ 365 days a year, there may be a need to re-evaluate the design of the existing fishway. The amount of water that may be approved will likely be less than the amount for which the ladder was designed. Under a lower flow rate, the ladder may not pass fish as effectively as it would if the ladder was redesigned or altered. An engineer familiar with hydrology, fish movement and ladder design could be hired to review the functionality of the ladder.