

Living Rivers Changed Lives, Helped Salmon

Forty-five years ago, on the banks of the Tabusintac River in northeastern New Brunswick, a team of graduate students were tasked by two influential CEOs in the salmon conservation world with developing the region's first residential environmental camp for teenagers and adults. The challenge was daunting. In 1975 there were no existing models in the Atlantic Region that focused on rivers and, furthermore, leaders of the two organizations backing the program had hopes that it would lead to a reduction in salmon poaching.

Years of effort by the International Atlantic Salmon Foundation (IASF) to reduce threats to Atlantic salmon caused by interaction with high seas fisheries had not produced the intended increase in returning salmon populations for rivers of the Maritimes. Turning their attention to in-stream threats, Dr. Wilfred Carter of IASF, which later became the Atlantic Salmon Federation, and Rev. Robert A. Bryan, founder of Quebec-Labrador Foundation (QLF), devised a radically different strategy calling for experiential education for New Brunswick high school age youth.



Instructor Jim Gaffney and participants observe aquatic life collected from the Tabusintac River of New Brunswick.



Staff and participants at Living Rivers, Micmac Lodge, 1975. Larry Morris, rear left.

teenage participants, but also for the more than 65 young instructors and camp directors, chief among them Larry Morris, the program's first director.

Carter's expertise in science and management teamed up well with Bryan's dedication to rural communities. As they launched their idea, neither CEO would have predicted that over the course of its 13 years of operation, the program would become an incubator for leadership development, not only among the program's

Partner Accomplishments 2018 – June 2020

Stewardship signs:
93 posted + 40 this season,
133 total



Youth presentations:
1,018 youth, 40 presentations



Youth fly-tying workshops;
60 youth, 5 events:
McKay's, Main Brook,
Roddickton,
St. Anthony



General audience
presentations:
164 participants, 8 events



Snorkel surveys: Robinsons
River, Middle Barachois River,
Little Barachois Brook



Habitat assessment:
Crabbe's, Robinson's,
Fischell's rivers



Salmon counting fence,
Little Barachois Brook:
575 salmon



Clean-ups: 66 participants, 6
events, 0.96 tonnes of trash
removed, 15.44 ha restored



Prof. Richard Fischer, guest instructor, taught participants about aquatic insects, including the giant water bug.

Dr. Carter and Rev. Bryan sent the team of instructors to Micmac Lodge, six kilometers upstream on this pristine river known for sea trout and a fall run of salmon that was popular among sportsmen because it overlapped with the waterfowl hunting season. The context is important: while the novel concept of sustainable development was beginning to gain recognition internationally, it would be years before the term would enter the vocabulary of corporations or the vernacular of rural North America. To many people then, a person worked either to protect the environment, or to help people. But Carter, Bryan, and the instructors viewed the challenges of conservation differently.

Inspired by the pioneering task before them, Morris' team rapidly developed an intense curriculum: three weeks for teenage youth, with a focus on hands-on learning about aquatic species, and three weeks for adults, with a focus on issues discussion. Both sessions included road trips to visit natural areas, fish hatcheries, and industrial areas such

as peat mining operations and power plants. The adult session targeted resource users of all types, from employees of mining and forestry companies to schoolteachers and corporate executives. Participants included representatives from Canadian and US governmental departments and nonprofit organizations. Regardless of individuals' backgrounds, discussions seemed to converge around shared conservation issues, thus broadening people's perspectives in the search for solutions.

Shortly after that first year, Morris, who a few years earlier had left business school to pursue his inner calling in natural resource management, was analyzing what was happening at the Living Rivers Program as the subject of a doctoral dissertation at Cornell University. Unlike his fellow Ph.D. students, Morris leaned towards



The pristine Tabusintac River in New Brunswick was a perfect setting for learning about the ecology of rivers.

spending a career in positive, constructive action rather than scholarly academia. While there may not exist quantitative measures for how the salmon populations of New Brunswick rivers benefited from the program, one can say with certainty that the program gave evidence for a powerful new

approach to salmon conservation and resource management. Not surprisingly, it was Morris who, after hours of early discussions with Wilfred Carter, gave the program its name: Living Rivers.

Many of the program's instructors eventually became leaders in the field of conservation, either as professionals or contributing donors. For Dr. Morris, the experience was life changing. He became the CEO and later President of QLF, where he continues to serve as President Emeritus. Looking back 45 years to that formative experience, he is fiercely loyal to the people who helped develop the program and to the outfitting team of cooks

and guides who supported its operation. When Morris is asked about the program, he quickly slips into animated conversation, full of stories on the river and with a passion for the people. And he is quick to state that the Living Rivers program was what inspired him to devote his entire career to conservation.



Participants discuss their aquatic insect collection with former New Brunswick Premier, Richard Hatfield, who visited the program often.

Evaluation of the Atlantic Salmon Populations in Rivers of Bay St. George South

During the summer of 2019, the Bay St. George South Area Development Association (BSGSADA) received funding from the Atlantic Salmon Conservation Foundation (ASCF) to conduct an assessment of the status of Atlantic salmon populations in three rivers of southwest Newfoundland: Little Barachois Brook, Robinsons River and Middle Barachois Brook. Biologists had been concerned that the numbers of spawners in these rivers were below their conservation requirements, which meant that long term sustainability of the population was being threatened and the population size may not be able to increase. Here follows a technical account of the assessment results, written by the lead scientist and field operations director, retired DFO biologist Rex Porter. The participating organizations and volunteers extend a hearty thank-you to Rex for this report.

Little Barachois Brook

A salmon counting fence was installed on June 15, 2019 on Little Barachois Brook, approximately 9 km upstream from the brook's estuary. It remained in operation until September 22 and received 24-hour security from locally hired fence attendants. On August 16, a snorkel survey was carried out on the section of the brook downstream from the counting fence. In total, 624 salmon were counted, consisting of 426 small salmon (< 63 cm) and 198 large salmon (≥ 63 cm). It was estimated that about 90% of the river's conservation requirements were achieved. The counting fence and snorkel survey represented the first time that salmon have been counted on Little Barachois Brook. The



The counting fence on Little Barachois Brook.

information gathered is considered an important contribution to the conservation and management of the salmon population. Of note, the snorkelers found a poacher's salmon net that had been left on one of the

banks.

The BSGSADA are very grateful for project funding from ASCF and for additional support from: Department of Fisheries and Oceans for assisting with installing the fence and technical advice, Parks Canada/Gros Morne National Park for loaning the counting fence material; Qalipu First Nation and the Flat Bay Band for assisting with fence operations; and Nature Conservancy of Canada for use and access of their property. The

BSGSADA also thank the staff and especially field staff who worked long hours installing and monitoring the counting fence.

Robinsons River and Middle Barachois Brook

For the second consecutive year, the BSGSADA successfully counted the Atlantic salmon in Middle Barachois Brook and Robinsons River, thanks to financial support from ASCF and in-kind support from DFO, Conservation Corp NL, Atlantic Salmon Federation,

World Wildlife Fund-Canada, and volunteers. The enumeration was conducted by 14 snorkelers, two data recorders, and two assistants during the period August 12-16. The snorkelers surveyed each river from their uppermost



The 2019 snorkel survey team (Rex Porter, fifth from the right) demonstrated enduring commitment and strength as they worked long hours each day.

reaches accessible to salmon, downstream to the estuary. Since water levels were low, the snorkel crews could see the bottom of most pools; thus, most of the salmon were counted.

A total of 942 Atlantic salmon were counted in Robinsons River; of these, 249 (27%) were identified as large (≥ 60 cm) and 689 (73%) as small (< 60 cm) salmon. With an adjustment for salmon missed during the survey, it was estimated that 1,114 salmon (815 small, 299 large) spawned in Robinsons River, which is 71 % of the number required to achieve the river's conservation requirements. The number of large salmon spawners in 2019 was higher than the number estimated in 2018 (201 salmon); whereas, the number of small salmon was lower than in 2018 (1,099). Scars were observed on 11 salmon, indicating that poaching is still a serious problem.



Snorkel crew counting salmon in a pool on the Robinsons River.

A total of 565 Atlantic salmon were counted in Middle Barachois Brook; of these, 112 (20%) were identified as large and 453 (80%) as small salmon. With an adjustment for salmon missed during the survey, the estimated number of spawners was 644 (516 small and 128 large salmon), which is 55% of the number required to achieve the river's conservation requirements. The numbers of large and small salmon in 2019 were higher than in 2018 (94 large, 362 small). Scars were observed on two salmon. Snorkelers saw a number of dead parr and one dead adult salmon. These fish may have died due to high water temperatures.



A snorkel survey gives participants a unique view of salmon habitat.

The salmon populations in both rivers continue to have serious conservation problems. Only through continued combined efforts and participation by the general public, conservation groups, and

organizations such as the BSGSADA, Intervale, and Aboriginal groups, will these populations recover to the size enjoyed in the 1970s.

Renewed Concern, Action for Parker's Brook Arctic Char

Parker's Brook, also known as Western Brook, is home to a population of Arctic char that is reported to be the southernmost anadromous Arctic char population in Newfoundland and Labrador. In recent years, there have been several serious die-offs of char and Atlantic salmon observed in-stream, near where the river empties into Pistolet Bay at the northern extreme of Newfoundland's Northern Peninsula. Now, a team facilitated by World Wildlife Fund Canada (WWF-



Arctic char from a large die-off in Parker's Brook, Northern Peninsula.

Canada) will be conducting remedial work to restore habitat conditions thought to be linked to fish migration and water quality. Meanwhile, they will be engaging citizens in outreach and a renewed commitment to stewardship, acknowledging the good work that the local Save Our Char Committee was able to

achieve a decade ago. The team includes concerned citizens, staff from Fisheries and Oceans Canada, and support from expert restoration consultants (Inter-Fluve). Their efforts are being supported with funds from the Environmental Damages Fund of Environment and Climate Change Canada.

The populations of Arctic char and Atlantic salmon in this river need support if they are to survive. Before the project begins, the team would like to hear from the public. For more information, please reach out to Chelsea Boaler, cboaler@wwfcanada.org.

Chelsea Boaler, WWF-Canada's Marine Ecosystems and Fisheries Specialist, contributed information for this story.

Young Artists Create Boxes for Salmon Conservation

Two of the most popular rivers on the Northern Peninsula for salmon anglers will receive a boost this season from an art and rivers initiative aimed at inspiring anglers and other users to follow best practices while enjoying the river. Beaver Brook flows east and southeast along forested limestone bedrock before emptying into Canada Bay near Roddickton. Famous for its underground salmon pool, Beaver Brook has an extensive trail system that receives abundant use. On the western side of the Peninsula flows the St. Genevieve River, from headwaters at Ten Mile Lake to the outlet emptying into the Gulf of St. Lawrence between Plum Point and Black Duck Cove.

Problems with trash disposal and occasional poaching along these rivers led Intervale to attempt a technique aimed at encouraging stewardship. Intervale's Kathleen



Frontside view of the welcome box painted by Chloe Foley.

Chloe Foley, age 16, is a Level 2 Academic Student at Cloud River Academy in Roddickton, where she currently resides with her family. She started painting at an early age and grew to become a serious student of art. She explains that her painting is influenced in part by a Japanese art style that appears to give movement to the subjects.

Hollis Cull, Principal of Cloud River Academy, reports that he was “blown away” when he saw what Chloe produced for the welcome box, commenting, “Chloe has

exceptional talent and we are very proud of her, because we’ve seen what she’s capable of.”



Chloe Foley (16) painted the welcome box for Beaver Brook and the underground salmon pool.



Backside view of the welcome box painted by Chloe Foley.

Blanchard invited two Newfoundland youth to paint welcome boxes that will greet trail users along the rivers. The only instruction she gave the young artists was to paint decorative nature scenes suggestive of a salmon river. Their creations are truly inspirational!

Chloe's preference is to paint animals and people. As Hollis Cull said, “She puts her all into it and what comes from it is quality work.” Chloe Foley's welcome box will be mounted at the entrance to the trail leading to Beaver Brook near her home.

Lily Cunning, age 10, is a Grade 5 student and lives in Hughes Brook. When asked about her experience painting of the boxes, she explained:



Lily Cunning (10) painted the box for the St. Genevieve River.

“It was challenging at first, but I learned that art takes a lot of time and effort. My favourite picture was really challenging to do (sunset with angler)! ...the sides are just WOW! Full of bubbles! ... I thought the life cycle of salmon would be cool to include, and thought about different ways of tackling it with my step Mom and Dad, Chelsea Boaler and Brent Cunning! ...I must say I am really happy how it turned out in the end....”



Backside view of the welcome box painted by Lily Cunning.

No doubt trail users along the St. Genevieve River will also be happy when they encounter Lily Cunning’s box at the start of the trail.

When COVID-19 restrictions are eased sufficiently, a guest book will be placed in each welcome box, inviting trail users to add comments about their experiences along the river. It is hoped that the artistic creations will inspire people to care for the rivers and their salmon populations.



Frontside view of the welcome box painted by Lily Cunning.

Hilary Alexander of Stephenville Crossing constructed the boxes and Clarence Goodyear of Roddickton gave them a weatherizing coat. We thank everyone involved in the art and rivers initiative.

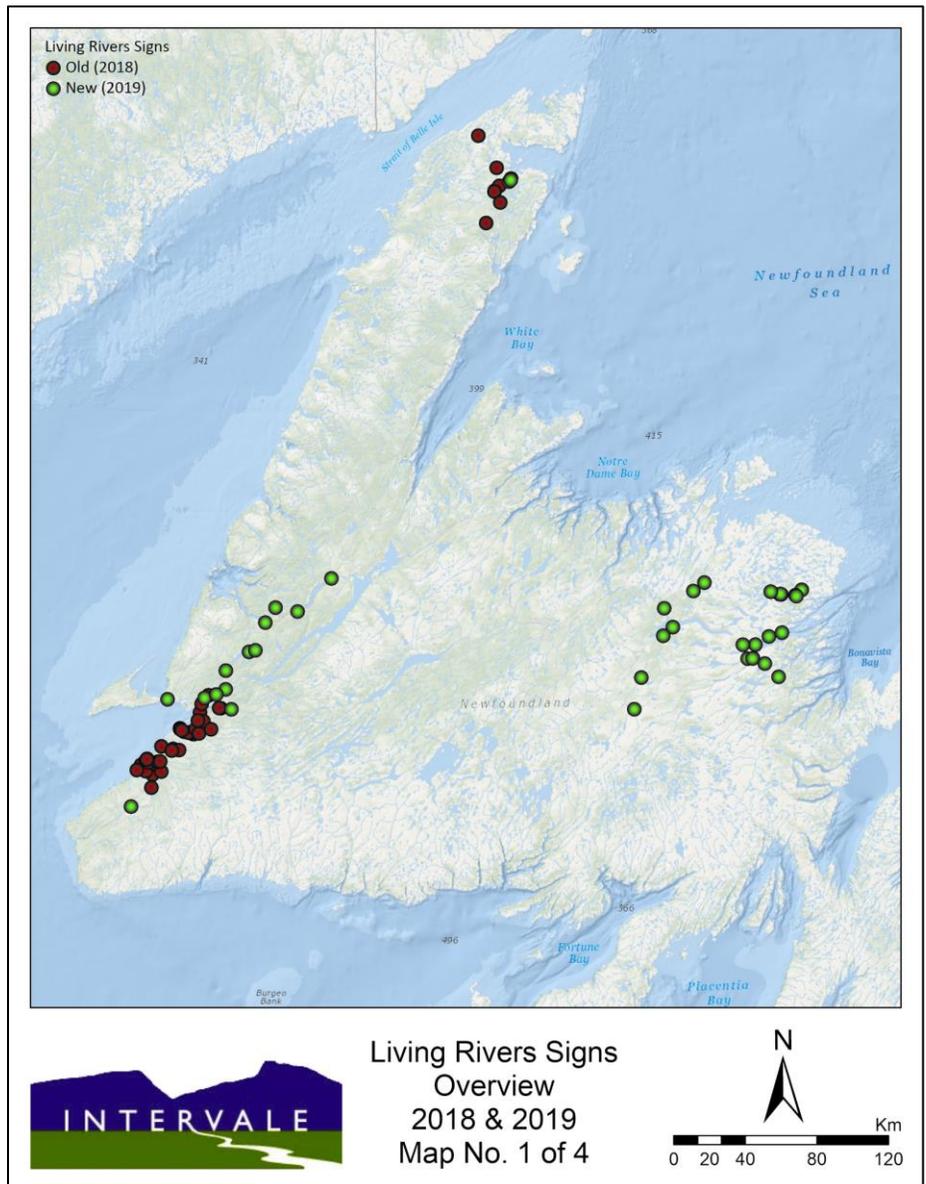
Citizens Partake in Campaign to Reduce Poaching, Improper Waste Disposal

With the help of many contributing organizations and individuals, Intervale is continuing its campaign to post stewardship signs along important salmon rivers across the province. The campaign has been gaining momentum steadily as an increasing number of volunteers have been identifying new sites and taking on the task of posting, geo-referencing, and maintaining the signs. As of the 2020 salmon fishing season, 113 signs will have been posted from Bay St. George to the Avalon Peninsula.

The strategy tackles two important threats: illegal fishing and improperly disposed waste. Illegal fishing, i.e. poaching, immediately impacts a river’s salmon population and its ability to increase in size, because it reduces the number of spawners and lowers the

productivity for that year. Littering and dumping of waste is more insidious, widespread, and threatening to all aquatic species and their habitat. The stewardship signs project a positive message of how people can help protect their salmon river by packing out waste and reporting signs of poaching.

Since it began in 2018, the campaign relies upon citizens for their knowledge and experience in identifying sites that would most benefit from posting signs. Many people have responded to the call for help, including Max Pike (teacher), Darren Sheppard (IBEC), and Mitchell Gillingham (Fish and Wildlife Enforcement) in central Newfoundland. On the Northern Peninsula, Brendon Fitzpatrick, Clarence Goodyear, and Barb Genge (Tuckamore Lodge) assisted in the Canada Bay to Hare Bay area, while Wilfred and Donna Doyle (St. Genevieve Inn) posted signs along the St. Genevieve River. The Bay St. George South Area Development Association and the Flat Bay Band provided abundant assistance with sign postings for rivers in southwestern Newfoundland, while Qalipu First Nation and the Atlantic Salmon Federation were instrumental in selecting important sites along rivers of western Newfoundland. In recent months Intervale has received requests for signs from organizations in Labrador.



Locations where Living Rivers signs were posted in 2018 and 2019.



A Living Rivers sign posted in the Pinchgut Lake area of western Newfoundland.

This season, the campaign is focusing on new sites in eastern Newfoundland, where Barry Fordham and members of the Newfoundland Outdoor Heritage Coalition Inc. as well as other groups will post signs on the Salmonier, Collinet, and Renews River as well as one in the Northeast Placentia Bay area. The remaining signs will be posted along the Northwest Gander River and in areas of the island not previously covered, including along the Burgeo highway and parts of the Northern Peninsula.

Do signs make a difference? Many people claim that they do. Eric Bennett, project lead for Intervale, points to an instance on the Robinson's River in 2018, when an individual who had seen one of the signs quickly reported to provincial authorities an illegal salmon net

that he had just spotted on the river. Within an hour of the call, the conservation officers had removed the net.

There has been abundant feedback from people who say they appreciate the positive message conveyed by the signs.

Intervale is extremely grateful to the individuals and organizations that are helping to make a difference in reducing illegal fishing and the improper disposal of waste. For information about the campaign, please contact Eric Bennett at Intervale, ericbennett19@gmail.com.

Editor: Kathleen Blanchard. Photo Credits: Pages 1 & 2, courtesy, QLF; Page 3 by Travis Hulan; Page 4 top by Sherry Pittman, middle courtesy Sheldon Eddison, bottom courtesy Rex Porter; Page 5 by Clarence Goodyear except bottom right courtesy Foley family; Page 6 by Russell Wall except bottom right by Eric Bennett. Map courtesy Ian Sullivan, Qalipu.

Editor's Note: In 2003 I made several visits to my second cousin, Donald Tompkins, former Deputy Mayor of Stephenville. A wise octogenarian, he loved giving advice on how to put people to work to improve the quality of life in Newfoundland and Labrador, and he always followed with a colourful story. During one of those visits, I asked Donald's opinion on how Intervale, a new conservation nonprofit, might be of service to communities in southwest Newfoundland. Without hesitation, he said, "Help the salmon in our rivers!"

Over the years, Donald regaled me with family stories about salmon fishing in the Codroy Valley. He passed in 2013 just shy of 97 years. As I fondly remember my civic-minded and entertaining cousin, I like to imagine his reaction to the stories presented in Living Rivers about the efforts of so many people on behalf of rivers and salmon conservation. As Donald would say, "Keep up the good work!"

Finally, we hope readers enjoyed this third issue of Living Rivers, which includes an historical account of an important river conservation program by the same name that operated four decades ago and achieved far-reaching impact. We honour that program as we go forward in mission and name. The next issue of Living Rivers is scheduled for Fall 2020. Please send us your suggestions for stories and information by contacting any of the staff listed below. --Kathleen Blanchard

Living Rivers is a multi-year, collaborative project for the conservation of rivers and Atlantic salmon populations in Newfoundland and Labrador. The work engages volunteers and many partnering organizations, businesses, and departments. Intervale is grateful to these and other groups, which provide financial and in-kind support.



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Intervale is a nonprofit organization, incorporated in Newfoundland and Labrador, with a mission to conserve biodiversity, interpret heritage, and promote the integrity of rural livelihoods.

For more information about Intervale, please contact Kathleen Blanchard, Russell Wall, or Eric Bennett at info@intervale.ca or visit www.intervale.ca.

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