ANNUAL REPORT 2022

The Atlantic Salmon Conservation Foundation

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Annual Report 2022

MESSAGE FROM THE CHAIRMAN

Growing to meet wild Atlantic salmon conservation efforts across the five provinces.

This 2022 annual report reviews the Foundation's sixteenth year in operation, another highly successful year of wild Atlantic salmon conservation efforts across Atlantic Canada and Québec. We saw exciting progress made by our recipient partners, supported by our dedicated volunteer experts and staff members. As in years past, we are pleased to have partnered with community groups, Indigenous organizations, researchers and other passionate individuals in efforts to broaden wild Atlantic salmon conservation.

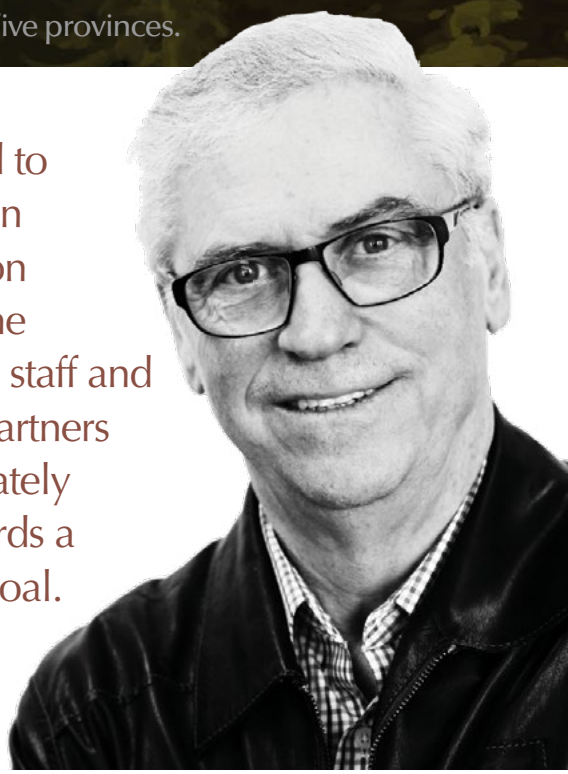
The role of the Atlantic Salmon Conservation Foundation, since its inception, has been to place funding into the hands of recipient groups devoted to unique wild salmon conservation projects in their respective communities. It is through this effective and calculated funding that the Foundation contributes to improving the conservation status of wild Atlantic salmon in Canada. In order to continue to support these efforts to the best of our abilities, the Foundation is constantly striving to strengthen its structure and operation and further its reach. As a recommitment to do just that, 2022 saw the implementation of a new five-year strategic vision called "Transformational Growth", set in place to renew the Foundation's vision, values, mission, goals, mandate and annual work plans.

2022 marked the first year of our five-year vision, which highlights the Foundation's major priorities as we continue to mature and evolve. In an effort to recommit to and expand on current goals, the Foundation has honed in on the ASCF model, governance, science, communications and partnerships as its main areas of focus. The development of the five-year vision serves as a testimony to the value we place in existing as a strong and permanent contributor to improving wild Atlantic salmon conservation.

In light of the success of our long-term financial plan, we were proud to have $1.5 million available for grant distribution in 2022. While we are pleased to be able to maintain this annual pool of funding, we are attuned to the fact that the genuine need for funding support exceeds our current grant capacity. We are working to strengthen our relationship with the federal government and are hoping to attract additional investment into our endowment fund to grow our annual granting impact. It is our hope that with the 2022 strategic vision in place, program awareness and funding capacity will grow to meet wild Atlantic salmon conservation efforts across the five provinces.

The Foundation would not be what it is today without the invaluable contributions of our dedicated and knowledgeable volunteer partners. The collaborative effort of our Board of Directors and the members of our six advisory committees continues to ensure grant funding goes to support important projects that respond to unique wild Atlantic salmon conservation imperatives.

I am proud to represent an organization in which the volunteers, staff and recipient partners so passionately work towards a common goal.



Honourable Rémi Bujold, P.C., C.M.
Chairman of the Board of Directors

Aside from the contributions of our expert partners, Foundation success is a result of the honourable dedication of our staff. Our leaders, Charline, Allyson / Gert, Henri and Stephen, work tirelessly to direct and guide the Foundation in ways that foster progress and prosperity.

I am proud to represent an organization in which the volunteers, staff and recipient partners so passionately work towards a common goal. It is through this collective effort that the conservation of wild Atlantic salmon continues to flourish.

Hon. Rémi Bujold, P.C., C.M.
Chairman of the Board of Directors

EXECUTIVE DIRECTOR'S REPORT

Continuing to build on sixteen years of successful Atlantic salmon conservation efforts.

Established in 2007 by an endowment fund granted by the federal government, the Atlantic Salmon Conservation Foundation has since evolved into a self-sustaining source of funding for wild Atlantic salmon conservation efforts in Atlantic Canada and Québec. Through the continued success of the ASCF model, the Foundation exemplifies the lasting impact of government benefaction.

In 2022, $1.4 million was granted to sixty-six unique conservation and scientific research projects. In 2023, this amount rose to $1.7 million (1.5 million in new funds and $200,000 in deferred funds) thanks to excellent financial stewardship. Supporting new initiatives and existing multi-year projects alike, the ASCF model continues to find success in its partnership with recipient organizations and the Foundation has now leveraged more than $62.3 million in overall project valuation.

The Foundation would not be where it is today if it was not for the exemplary work of Stephen Chase, who held the top position of the organization since its inception in 2007. I am truly grateful to have been given the opportunity to be Stephen's successor as the new Executive Director. The ASCF is entering a period of transformational growth and we are fortunate to still have Stephen as part of our team in his new role as V.P. of Government Affairs.

It brings me great pleasure to reflect on the strides made in our sixteenth year of operation. 2022 recorded another rewarding year of supporting municipalities, Indigenous groups, communities, conservation associations and research institutions across Atlantic Canada and Québec in their wild Atlantic salmon conservation efforts. I commend the efforts and dedication of our recipient partners as they continue to advance wild Atlantic salmon conservation in their respective communities. The excitement of 2022's success will only be built upon as we move forward into another year of intriguing and valuable partnerships.

To mirror the continued growth and strengthening of the Foundation, each year we continue to encourage higher quality funding proposals from our applicants. With limited resources, it continues to be our goal to select projects that most effectively propose initiatives in wild Atlantic salmon conservation, with our most recent focus being on river and watershed management planning.

It is a top priority of the Foundation to be consistent and transparent in our grant selection processes. Our trusted board and advisory committee members work diligently to ensure fair and effective application review and management of project approval, all while abiding by our funding agreement with the government. As the Foundation's reach and the need for funding increases across the five provinces we serve, our commitment to this process remains strong. It is our hope that our dedication to this process, and the success we continue to see, will aid us as we work to further develop our relationship with the federal government and request additional funding. The level of success we have reached in partnership with recipient organizations is just a fraction of what remains to be achieved, and we look forward to increasing our funding capacity and bridge that gap.

I commend the efforts and dedication of our recipient partners as they continue to advance wild Atlantic salmon conservation…

Charline McCoy
Executive Director

As we work towards achieving our financial goals, I'd like to once again commend the unceasing efforts of our recipient partners. It is their unwavering dedication that allows us to find continued success and see wild Atlantic salmon conservation grow at local and provincial levels. The work being done helps to protect more than just Atlantic salmon, it helps preserve the culture, identity and economic livelihoods of the areas being served. It continues to be a privilege to be able to contribute to such important work.

Charline McCoy
Executive Director

ANNUAL REPORT 2022

An Effective and Permanent Supporter of Wild Atlantic Salmon Conservation!

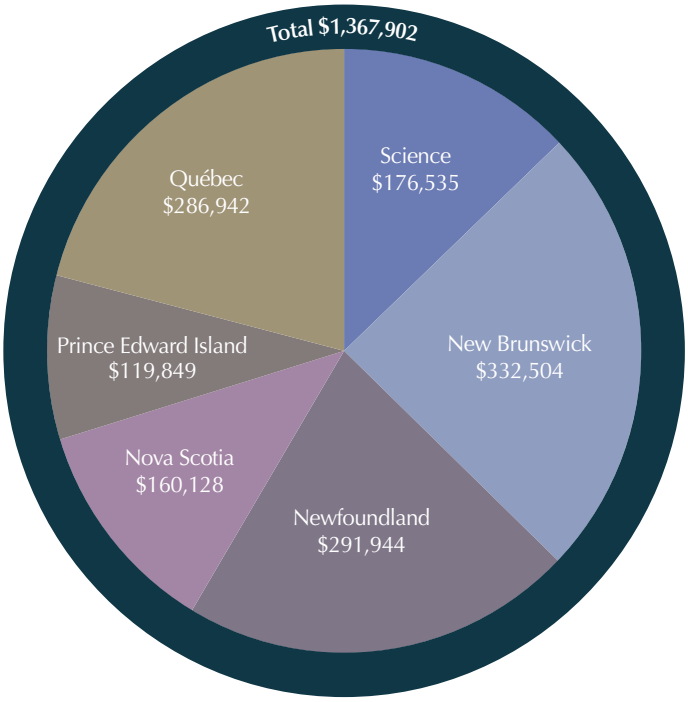
Introduction

The Atlantic Salmon Conservation Foundation is a permanent source of funding and conservation advice supporting community groups, Indigenous groups, researchers and other organizations across five provinces. With fifteen years experience to granting conservation project funding, the Foundation is a mature, reliable and facilitative factor in helping improve conservation of wild Atlantic salmon in the Atlantic provinces and Québec.

We understand the many challenges affecting salmon conservation and fully subscribe to long-term goal of achieving abundant wild salmon populations. That is why we strive to facilitate conservation action, though rigorous processes to help ensure both wise use of funding and the attainment of project outcomes. We are proud of our business-like and user-friendly approach.

The Atlantic Salmon Conservation Foundation is a non-profit, charitable organization dedicated to improving and strengthening the conservation of wild Atlantic salmon and its habitat in perpetuity. The Foundation is a volunteer-based organization that opened our doors in February 2007. The Board of Directors of the Foundation are volunteers, along with all of the volunteer experts on our six advisory committees who have come together to ensure the wise use of the trust fund for the conservation purposes for which it was designed.

The Foundation has the dual mandate of prudently investing the trust funds to generate income while preserving capital and ensuring that the organization is well-managed so it can provide funding to eligible salmon conservation initiatives in Atlantic Canada and Québec on a permanent, go-forward basis.



Grants Amounts Approved in 2022

A significant feature of the Foundation model is the inclusion of volunteer experts drawn from conservation groups, Aboriginal organizations and federal and provincial governments in all of its advisory processes. It is a model of partnership and inclusiveness that is unique in the conservation world. The Board of Directors of the Foundation actively relies on advice and recommendations provided by the six technical-advisory committees to guide the work of the Foundation.

This annual report reflects the Foundation's sixteenth year of operation. In 2022 the Foundation continued to build on the successful operational structure it created commencing in 2007 to support and extend salmon conservation initiatives. The year also witnessed completion of the Foundation's fifteenth round of grants in support of community salmon conservation projects as well as the 2023 call for funding proposals which closed in November 2022.

Background

The Atlantic Salmon Conservation Foundation was formed by a group of volunteers who incorporated a non-profit organization in 2005 to prepare a proposal to the Minister of Fisheries and Oceans to accept responsibility for the Atlantic Salmon Endowment Fund (ASEF) Program. The ASEF was created by the Government of Canada as a permanent source of funding to help conserve, restore and protect wild Atlantic salmon and their habitat in Atlantic Canada and in Québec.

The ASEF reflected, and continues to reflect, the calls of conservation organizations, Aboriginal groups and government officials for a permanent source of funding to help watershed and community organizations working on a range of wild Atlantic salmon habitat, enhancement, monitoring and conservation initiatives.

The organization that was created as a result of the federal investment was structured to meet the following objectives:

1. Be managed at arms-length from DFO by an incorporated organization;
2. Be a charitable organization;
3. Invest appropriated funds and hold them in trust;
4. Draw on contributions from other public and private sources;
5. Deliver the program from interest raised on the principal amount; and
6. Facilitate partnership with the provinces, Aboriginal groups and community volunteer organizations.

These objectives have been attained very successfully and continue to drive the organization and its way of doing business. The ASCF operates in the large and complex geographic, political and stock status environment of Atlantic Canada and Québec. To address these complexities, the Foundation relies completely on inclusive,

expert advisory committees that are unique in opening all processes to broad and meaningful involvement as well as full transparency.

In addition to the requirement to submit an annual report and an annual business plan to the Minister of Fisheries, Oceans and the Canadian Coast Guard, the Foundation is subject to periodic review of its performance by the Government of Canada. A value for money audit conducted by the Department of Fisheries and Oceans found that the Foundation represents excellent value for money, is demonstrating measurable progress on several fronts, while being strongly supported by its recipients and others interested in salmon conservation.

Foundation Mission Statement and Goals

The mission statement of the Foundation is "To promote enhanced community partnerships in the conservation of wild Atlantic salmon and its habitat in Atlantic Canada and Québec".

Four goals flow from this statement, around which our strategic direction is built and from which our granting process flows:

- To be **an effective source of funding for community volunteer organizations** in conserving, restoring and protecting wild Atlantic salmon and its habitat.
- To **enhance cooperation and partnership** among governments, Indigenous organizations, community volunteer groups and others in the interests of conserving, restoring and protecting wild Atlantic salmon and its habitat.
- To **promote and improve conservation planning and management at the watershed level** as the basis for ensuring effective use of and accountability for funds made available for wild Atlantic salmon conservation initiatives.
- To **improve public awareness, education and research** respecting the conservation of wild Atlantic salmon and salmon habitat.

The Granting Process

The Foundation is interested in funding innovative projects that will have a high probability of success with measurable results for on-the-ground conservation of wild Atlantic salmon and its habitat. It considers eligible projects related to the following categories:

- Development of salmon and salmon habitat conservation plans for a watershed or sub-watershed (watershed planning)
- Conservation, rebuilding and restoration of wild Atlantic salmon and salmon habitat
- Restoring access of wild Atlantic salmon to salmon habitat
- Public education and awareness of the importance of conservation of wild Atlantic salmon and its habitat

Emphasis is placed on improved conservation planning and management at the watershed level, as an ecological and geographic unit, to promote the most effective use of, and accountability for project funds.

The Foundation holds one call for proposals each year. Proposals are submitted on-line from April to a closing date for receipt of proposals in mid-November. Proposals for funding are reviewed by staff for completeness then forwarded to the advisory committees for review and recommendation during the period January to March.

Each advisory committee follows a standard proposal assessment and scoring procedures designed by the Scientific Advisory Committee. The proposals recommended by the advisory committees are reviewed and approved by the Board in early spring to enable all final approvals to be given and successful recipients notified well before the opening of the conservation field season. In addition, each unsuccessful project proponent is provided an explanation why it was unsuccessful both for information and to encourage future submissions.

Advisory Committees

The Foundation relies heavily on its expert volunteer advisory committee structure to make good decisions on the projects that should be funded. The advisory committee model is unique in the world of salmon conservation. It is a strategic direction that promotes inclusiveness of the many interests in wild salmon conservation and partnership among them. Most importantly, however, the advisory committees ensure that the Foundation continually receives excellent advice in the selection of conservation projects that respond to the unique salmon conservation imperatives faced in each of the five provinces.

There are six advisory committees consisting of a Scientific Advisory Committee and five Provincial Advisory Committees. Each appointee to these committees is an expert volunteer identified in consultation with stakeholder groups and governments. The advisory committees are a very successful way of including people in decision-making processes while also ensuring full transparency in the granting process.

The Scientific Advisory Committee (SAC) is the natural evolution from the former Central Advisory Committee. This committee is representative of world-class expertise in the salmon domain and carries the dual roles of ensuring wise investment in applied research scientific projects, as well as assisting the Board of Directors to develop and maintain effective policy, procedures and strategic direction.

Each of the five provincial advisory committees is responsible for identifying the salmon conservation priorities unique to their province; reviewing proposals for conservation funding and making recommendations on which projects should be approved for funding. They also participate actively in monitoring approved projects to help ensure they are progressing as intended. These committees meet twice annually to carry out their responsibilities.

FOUNDATION OBJECTIVES 2022

A report on objectives met, as stated in the 2022 Business Plan.

The following objectives were stated in the 2022 Business Plan. The following is a report on the extent to which those objectives were met:

Objective 1: To strengthen our prudent investment and financial strategy to maintain the Atlantic Salmon Endowment Fund at or above Funding Agreement requirements.

2022 Actions: The Foundation's investment portfolio is managed in accordance with a very prudent long-term investment and financial management plan overseen by the Investment Committee. This plan conforms to an Investment Policy and an Investment Strategy developed pursuant to the requirements of the Funding Agreement with the Government. This approach to investment and fiscal management enables the Foundation to ensure a minimum of $1 million dollars is available for project funding on a go-forward basis.

The long-term financial plan, the investment policy and the investment strategy are annually reviewed by the Board of Directors. They have been designed to ensure the investment fund to an inflation adjusted value while making provision to maintain an annual distribution of project funding over the same period, taking into account financial market performance, and Funding Agreement requirements.

North Shore MicMac District Council Inc - NB

The Foundation's investment portfolio experienced a decline in 2022 due to the volatile market at that time. Fortunately, our prudent investment strategy was successful in protecting and keeping the trust fund above the adjusted book value as required by the Funding Agreement. Importantly, sufficient income was generated to maintain the annual grant pool at $1,500,000 for 2023.

Objective 2: To observe a funding allocation model that is reflective of, and responsive to addressing conservation priorities of each province and meeting reasonable funding needs of community groups, Indigenous groups and others.

2022 Actions: As at 31 December 2022 the market value of the fund was reported as just over $42.9 million.

The Foundation follows a funding allocation model developed by the Scientific Advisory Committee (SAC) and intended to ensure that "fair geographic distribution of funds" required by the Funding Agreement. The formula is designed to optimize the Foundation's response to the respective conservation needs of each province with a basic fixed allocation to each province, supplemented with a funding distribution reflective of individual provincial conservation variables.

The funding formula also provides ten percent of the overall grant pool to fund applied research and other scientific projects identified as conservation priority topics by the Scientific Advisory Committee.

Objective 3: To strategically allocate funding to key, priority applied research scientific projects.

2022 Actions: The Scientific Advisory Committee has identified a range of critical conservation issues affecting the survival and strengthening of wild Atlantic salmon populations in Canada. These conservation issues are reviewed annually and are designed to guide the allocation of funding to the most critical applied research initiatives being funded by the Foundation.

The prioritization of applied research funding represents an intelligent and proactive approach to awarding ASCF funding for applied scientific research. Funding is directed to specific applied research topics that are considered to have the greatest on-the-ground impact for salmon conservation. Two requests for proposals were sent to potential respondents in 2022. The proposals were evaluated by the SAC and funding was awarded to three new projects.

FOUNDATION OBJECTIVES 2022

The following objectives were stated in the 2022 Business Plan

Objective 4: To maintain and strengthen a results-based management approach to Foundation funded projects.

2022 Actions: The Foundation conducts its business in accordance with its comprehensive Audit and Evaluation Strategy, as part of the annual Business Plan. All projects report their performance in a uniform manner, which facilitates population of a database developed by the Scientific Advisory Committee.

The standard project report for each project grant is designed to reflect the performance of each project and to enable cumulative reporting against the Foundation's performance measures as outlined in the Funding Agreement. The performance measures contribute to a database which enables the Foundation to report clearly on its attainment of objectives and other performance criteria. Thus, the Foundation fulfils its commitment to being a results-based management organization.

During 2022, additional refinements were made to project report forms through feedback from grant recipients and advisory committees to ensure that necessary data was reported but also to simplify required reporting. In addition, the Foundation implemented a new database reporting system to facilitate data access and reporting ability.

Since 2008, ASCF has granted **$12.5 million** to **732 projects** from nearly 1000 funding proposals, following a rigorous assessment process.

ASCF total funding distributed to the five provinces (all years) is as follows:

• New Brunswick	$3.06 million
• Newfoundland & Labrador	$3.07 million
• Nova Scotia	$1.33 million
• Prince Edward Island	$1.24 million
• Québec	$2.34 million
• Scientific Advisory Committee	$1.47 million

ASCF funds have leveraged more than **$62.3 million** in overall project valuation from other sources for an impressive **leveraging ratio of 5:1** (to 2022).

ASCF funded projects have resulted in major conservation improvements (to 2021):

- **113 million** square meters of **habitat access** opened
- **2.2 million** square meters of **improved habitat**
- **8,989 volunteers** contributed **211,822 hours** of effort
- **155,241 individuals** involved in **education & awareness**
- **$1.6 million** contributed to **82 Indigenous organization projects**
- **$2.5 million** contributed to **75 applied scientific research grants,** aimed at improving the effectiveness of conservation effort
- **2,958 jobs sustained**, mostly in rural areas
- **Eco-tourism** opportunity improved: ASCF funded projects help strengthen an eco-tourism industry worth several hundred million dollars annually in 5 provinces

Objective 5: To broadly share salmon conservation and scientific information through innovative methods such as the web-based "Salmon Hub" utility and the webinar series.

2022 Actions: The "*Salmon Hub*" is a "one stop" web-based source to facilitate access to salmon conservation information. This portal provides easy access to ASCF funded project reports, government

Cheticamp River Salmon Association - NS

FOUNDATION OBJECTIVES 2022

The following objectives were stated in the 2022 Business Plan

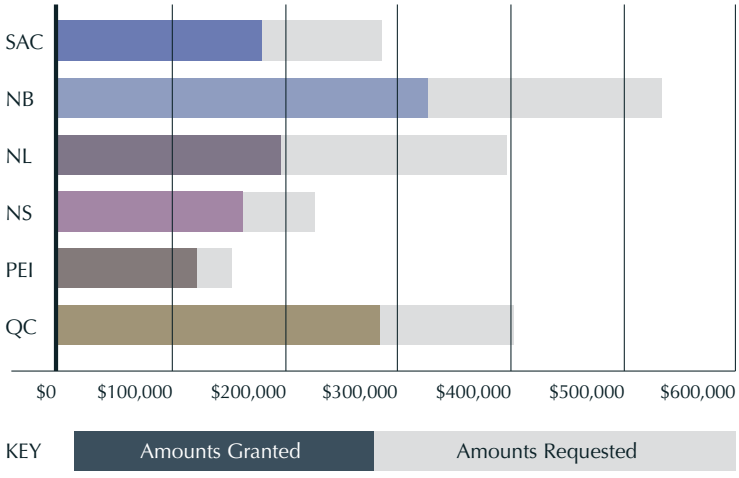
and NGO created technical and scientific reports and other sources of material related to salmon conservation. Information sharing is a major line of business for the Foundation and the Salmon Hub builds on the already significant Foundation website sharing of project reports, and social media.

The Salmon Hub experiences high access and has been widely acclaimed, nationally and internationally. Throughout the year staff and several subscribers have added more new material to the Salmon Hub. Recruitment of new sources of information and links to build content is a priority initiative.

Objective 6: To strengthen and build Foundation relationships and communications with current and potential stakeholders/ beneficiaries, the public, and potential new supporters.

2022 Actions: Throughout 2022 the Foundation carefully followed the direction identified in the communications plan, which is designed to facilitate the Foundation in establishing a distinct profile; building public understanding of wild Atlantic salmon conservation needs and building public support for salmon conservation.

The Foundation posted several items on its website, as well as sending periodic email messages to its constituents and interested stakeholders throughout the year. The Annual Report and the Business Plan are both designed to promote understanding of and support for the Foundation and are frequently shared with external groups. Also in 2022, the Foundation regularly updated to Facebook and Twitter to keep followers informed of developments. The number of followers on both social media increased significantly during the year.



Amounts granted & amounts requested in 2022

In addition, a schedule of webinars featuring a of well-known speakers on a broad range fish and freshwater issues was held. Several expert individuals from Canada and abroad were invited to present the topics and lead discussion on-line with regular attendance by representatives of Indigenous groups, NGOs, governments, academic institutions and businesses. The series has provided major new opportunities for information sharing and partnership building. In 2022, 6 webinars were hosted with a total of 816 participants.

In the Fall of 2022, a new monthly newsletter called 'The River/La rivière" was launched to share news and insights from the Foundation on our conservation and partnership efforts supporting wild Atlantic salmon.

Partnership Symposiums were also planned and executed in three provinces such as New Brunswick, Newfoundland and Labrador and Prince Edward Island. This was a starting point in establishing a much stronger provincial network and unifying voices focused on wild Atlantic salmon conservation. The plan will be to complete symposiums in all Atlantic provinces and Québec. The Foundation's "Transformational Growth" strategy recognized the need for sustainable partnerships, collaboration and planning at the watershed level.

Objective 7: To seek new sources of funding to build the Foundation's trust fund in support of meeting increased and reasonable demand for conservation project funding.

2022 Actions: By 2022, with fifteen years of experience in issuing project funding grants, the Foundation was in an excellent position to assess the degree to which available funding is meeting the actual need for conservation project funding. The number and the quality of funding proposals received by the Foundation has consistently increased over the years and, an analysis by the expert advisory committees indicated that approximately 50 percent of the demand for project funding in 2022 was being met and that several very reasonable, and strong, conservation project proposals could not be funded.

The fiscally prudent business model followed by the Foundation, and required by the Funding Agreement, places a limit on the annual allocation of grant funding at a level that will not erode the capital of the trust fund. To meet the additional and demonstrated need for conservation project funding the Board has determined that a larger trust fund is necessary. This was also identified in the renewed strategy with a goal to double the size of the ASCF's trust fund and the funds it distributes on an annual basis in support of Atlantic salmon conservation efforts in New Brunswick, Newfoundland & Labrador, Nova Scotia, Prince Edward Island and Québec. This matter was raised with the Minister.

2022 PROJECT PROFILES • NL

Assessing the habitat quality for Atlantic salmon in the Waterford River

Newfoundland's Waterford River was historically home to significant numbers of Atlantic salmon, but after many years of nearby urban development and competition from introduced brown trout they have not been seen in the watershed for many years. And while this makes the river a tempting prospect to attempt re-population efforts, the river has been impacted by many years of development and, more recently, the impacts of climate change.

"My thought on it was, instead of just jumping straight into throwing juveniles or eggs into the river and hoping for the best, to assess how the river has changed since climate change has taken effect to see whether it would even be a viable option to reintroduce salmon into the river," said Jennifer Blundon, project coordinator with the Northeast Avalon Atlantic Coastal Action Program. "We started with the lower sections of it first, and then considered it a phased project over time to paint the full picture and see whether or not it's an option to successfully reintroduce."

The impacts of climate change on watersheds cannot be ignored – days before Blundon spoke with the ASCF for this project profile, Hurricane Earl arrived in Newfoundland, causing the Waterford and many other rivers to burst their banks, leading to significant flooding in nearby areas. This has led to concern about what may have been washed into the river as a result.

"But this is not an isolated event," said Blundon. "It's becoming more and more frequent in recent years. So contaminants and things like that are also a concern, as rivers have flooded their banks."

The NAACAP identified 8 sites to perform their assessments, ranging from the harbour front all the way to Bowring Park – the park being chosen as an end point due to its large duck population and the potential for impacts on water quality from that point. The assessments include temperature, pH, specific conductivity, total dissolved solids and dissolved oxygen which will all be compared to optimal conditions for Atlantic salmon. They are also assessing physical barriers to Atlantic salmon movement.

"Based on what we found during cleanups associated with this project, we've come to realize that shopping carts are definitely prevalent in the water," said Blundon. "And they're kind of embedded into the ground at this point along the waterways. And I'm sure other things have gotten tangled up in amongst all that. We can't do anything about that, but it will be part of our reporting."

Aside from that insight into the potential for blockages in the river it is too early to draw any conclusions regarding the findings of the water quality assessments – the NAACAP started their assessments in July and will continue into October. The analysis of their findings is expected to be completed by the end of December. The NAACAP received just over $17,000 from the ASCF for the project and provided in-kind support of roughly $11,000.

Northeast Avalon Atlantic Coastal Action Program

2022 PROJECT PROFILES • QC

Identification and characterization of thermal refuges in the Jacques Cartier River.

Thermal refuges are areas in a watershed where the water is colder, which can provide a space of shelter for salmon as temperatures rise in other parts of the waterbody. Knowing exactly where thermal refuges exist could then be extremely useful for anyone interested in performing habitat restoration or other conservation efforts. That was the basis for a project undertaken by the Huron-Wendat Nation in partnership with the Corporation du basin de la Jacques-Cartier.

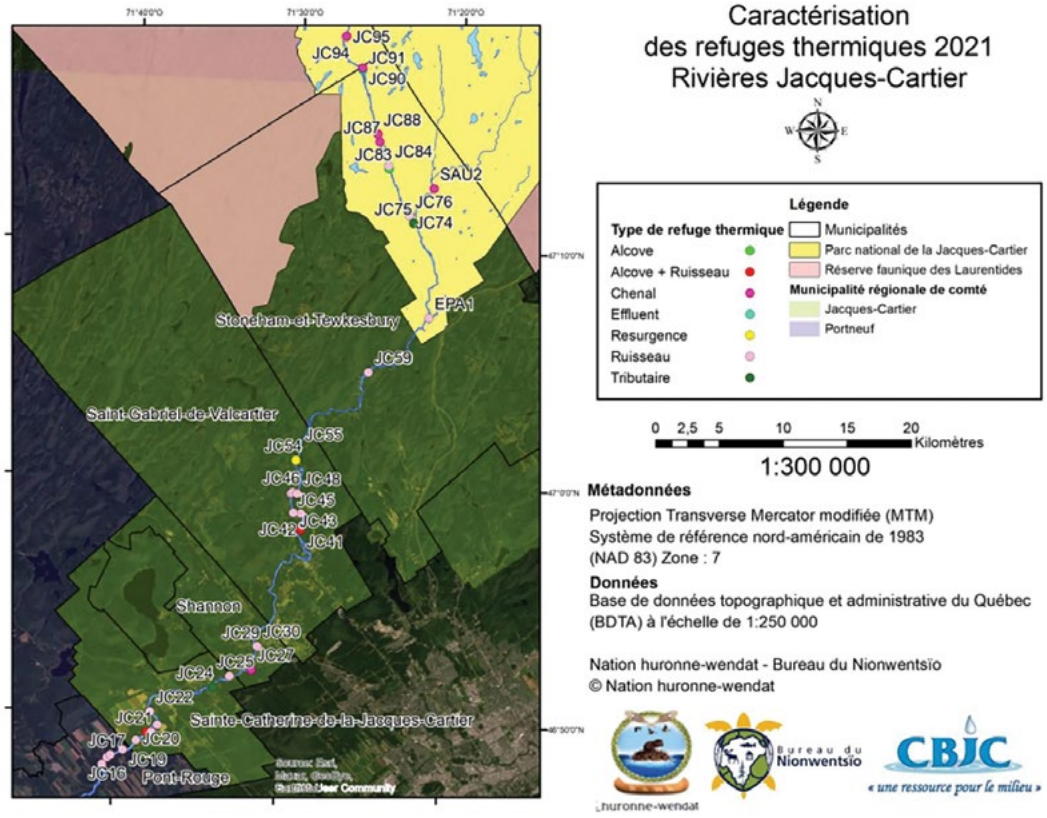
"It's the first step in taking any conservation or protection action," said Project Coordinator Clara Morrissette-Boileau. "We found these refuges in the Jacques Cartier National Park, so we can let the park know where these areas are so they can let visitors to the park know not to swim there, or maybe to have an interpretive sign to let people know about this kind of issue."

Morrissette-Boileau says that the project will also have benefits near private lands, as landowners could be informed about important thermal refuges in the river so they could make efforts to ensure that the banks are protected and that sediment impacts are as limited as possible.

"Our goal is to make sure that owners of public or private lands know about these areas so we can make sure they are protected," said Morrissette-Boileau.

The first step in the inventory of thermal refuges was carried out with a thermal camera attached to a helicopter, which flew along the river. Using the thermal imaging as a guide, the second step involved on-site measurement, to determine the exact changes in temperature and the sizes of the refuges, as well as cataloguing other useful information such as the state of the riverbanks or what type of fish could be found currently in the watershed. The Huron-Wendat Nation received $32,000 from the ASCF for this project in addition to other federal funding.

"That part of the project is completed, and our next step is to reach out to the different landowners and the public to ensure that they are aware of the thermal refuges and their importance and to suggest conservation actions they could undertake or partnerships that we could undertake for certain actions," said Morrissette-Boileau.



Huron-Wendat Nation

2022 PROJECT PROFILES • NB

Identification and prioritization of barriers inhibiting fish passage within the St. John Watershed.

Human-created structures such as road culverts can negatively affect the health of an ecosystem, impacting wildlife and their movements, abundances and species richness. However, this can be a challenging issue to address due to prohibitive costs for locating, evaluating and remediating problem structures at landscape-scale. The Wolastoqey Nation in New Brunswick, a not-for-profit organization representing the six Wolastoqey communities in the province, identified the need for a framework to perform evaluations and prioritizations to simplify the decision making process. The project utilized publicly available Light detection and ranging (LiDAR) and orthophotography to locate and identify road crossings and to evaluate fragmentation and potential impacts on various fish species.

"We collected and mosaiced all the 1-m LiDAR digital elevation models from Service New Brunswick for the St. John Watershed," said Michael Arsenault, fisheries analyst with the Wolastoqey Nation in New Brunswick. "We then acquisitioned the road and stream data from Service New Brunswick. After the LiDAR DEM, road network and stream network were integrated, the intersect function was used on the road and stream network. A point was placed wherever the two vectors crossed, which was considered a potential stream-road crossing."

Starting from the Northern extents of the St. John Watershed, orthophotography and LiDAR DEM were used to determine what kind of crossing it was, broken down into categories such as culverts, drainage ditches and bridges.

"We have completed approximately 40% of the total area of the St. John Watershed," said Arsenault. "This resulted in 6,500 crossings, in which 2,080 of those crossings are culverts. The up and downstream elevations were extracted for the 2,080 culverts. From there, the elevations and end points of the culverts can be used to calculate the length and slope of each culvert. This is achieved through a simple workflow that can be automated."

The Wolastoqey Nation in New Brunswick was provided $29,000 in funding from the ASCF for the project. Arsenault says that at the end of the project, the group will have a list of priority remediation projects – carrying out that remediation will be their end goal.

"Our main focus would be using this database to find offsets for projects involving Fisheries Act Authorizations, community safety and improvement, or the reinforcement of Food, Social and Ceremonial Rights," said Arsenault.

Wolastoqey Nation

2022 PROJECT PROFILES • NS

Pinevale Brook aquatic restoration and monitoring.

Pinevale Brook is the largest tributary to the South River in Antigonish County, Nova Scotia. This stream historically contained important spawning and rearing habitat for juvenile Atlantic salmon, however the historical impacts of land clearing and channelization led to a significant decrease in habitat quality over the past century. In 2021, the Antigonish Rivers Association received funding from the Nova Scotia Salmon Association's Gulf Priority Rivers program to complete habitat suitability index (HSI) surveys and a subsequent restoration plan for the South River.

The results of the HSI surveys indicated that the spawning habitat was embedded with siltation and pool habitat lacked depth and cover – all critical components of a healthy Atlantic salmon stream. In order to address these issues NSSA staff recommended the installation of log deflectors and digger logs in order to promote the recovery instream habitats. These structures are designed to mimic the natural benefits created by large woody-debris that is found within the channel.

"The work on Pinevale Brook set out not only to install structures but also to collect some solid baseline data," said Nick McInnis, chairman of the NSSA's Habitat Restoration Committee. "We quantified what the habitat looked pre-restoration in 2021 and 2022 using the NS Habitat Suitability Index survey and we've been monitoring water temperatures there for three consecutive years now. We really set out at the beginning of this project to complete any restoration work within a strong scientific context, so we've collected data on water temperatures, habitat assessments and in 2022 we extended our surveying to include electrofishing, redd surveys and invertebrate studies."

Further, MacInnis added that, "this project has really been a collaborative effort." Noting that ongoing support from NSSA's Adopt a Stream Program helped develop the scientific context behind the project and partnering with the Mi'kmaq Conservation Group helped bring additional resources into the project.

In total 25 structures were installed in the Pinevale Brook. As with many projects of this type, it will take time before the results of their efforts can truly be seen and quantified. ASCF provided $20,000 in funding for this project.

Antigonish Rivers Association

2022 PROJECT PROFILES • PEI

Atlantic salmon habitat restoration.

While the exact time when the incident occurred is hard to pin down, at some point in the past 25 years a makeshift bridge on PEI's North River collapsed into the waterbody, causing significant impacts for the salmon in the river.

"It was a 1940s or 1950s steel 18-wheeler frame, a solid steel truck bed that had been turned into a bridge," said Karalee McAskill, watershed coordinator with the Cornwall and Area Watershed Group Inc. "It was braced with wood and old cars from the previous landowner – all that had collapsed into the river and created quite a bit of erosion and instability."

While the river had historically seen salmon all over, after the bridge had collapsed salmon were no longer found above the makeshift bridge. Further, over time the blockage in the river had started to facilitate erosion which was degrading the habitat downstream more and more. After conducting several surveys of the area, the Cornwall and Area Watershed Group decided it was time to move forward with removing the obstruction and applied for funding with the ASCF. They received $20,000 from the Foundation, as well as funding provided by the PEI Watershed Alliance, The PEI Wildlife Conservation Fund, and the provincially administered Watershed Management Fund.

"Some of the challenges were contracting the right people to do the job because it was such a large structure that they weren't sure how to remove it without creating a lot of sedimentation and working with the landowner as well," said McAskill. "It did look messy for a little bit but I think at the end of the day he was satisfied with the way his property looked afterwards."

While the river immediately looked a lot nicer aesthetically with the obstruction removed, it will obviously take time and further surveys to truly measure the impacts that the project will have on salmon habitats and where they are found in the river. McAskill says the watershed group are looking to perform some electrofishing next year to record changes in productivity and the number of juveniles to be found. They did find salmon while electrofishing the site the day before the obstruction was removed.

While removing that obstruction was the primary aim of the watershed group's project, the ASCF funding also allowed for some habitat restoration in other salmon rivers. In Cole's Creek groundwater spring excavation and headwater tree planting to increase environmental flows, shade and to reduce warm water events occurred. 3500 native trees were planted at 16 different sites – in total the group planted about 59,000 acres of headwater and riparian land. In Watt's Creek, riparian management efforts were undertaken, including addressing upland sedimentation issues, invasive species and maintenance of a sediment trap to improve juvenile salmon habitat. Holding pools were also created for staging on all salmon rivers.

"We're looking forward to seeing some of those benefits," said McAskill of the project now that it has been completed. "We'd love to see more salmon in the area and an increase in the overall quality of the habitat."

Cornwall and Area Watershed Group Inc.

2022 PROJECT PROFILES • SAC

Development of a decision-tree to guide stream restoration interventions.

Many people and watershed associations would love to undertake projects to help improve salmon health and habitat in their area but the question of where to start can be daunting. There are so many factors to consider and so many questions that must be asked first. That is why the Nova Scotia Salmon Association chose to undertake the project of developing a decision-tree to guide such efforts in Nova Scotia and around the Atlantic provinces.

"It's a challenge for community groups to determine the first step of even understanding what options might be out there for them to pursue for improving their watercourses," said Amy Weston, program manager with the NSSA. "We've been working in the last couple of years on watershed stewardship planning in eight priority watersheds. So piggybacking on some of that work, we're going to help people be able to prioritize where restoration is most needed, and then what restoration is most needed."

Weston cautions that while the decision tree should be a very valuable tool for community groups, it will not be a magic bullet. Natural ecosystems are all unique and all have their own factors and issues that require individual solutions. So a key approach of this project is to get people to understand the overarching aspects of their watershed to help them figure out what is possible.

"As a habitat restoration practitioner for many years, I'll be asked to visit locations, 'we're going to do a project here, we want to improve the pool,' and then you go and it's not the kind of stream that the techniques that we have available to us are suited to," said Weston. "This will help people make those decisions earlier to see what's possible and what's actually needed."

In order to develop the decision tree, the NSSA team created a questionnaire to solicit input from a variety of habitat restoration experts. Their answers to those questions, and input from further consultations, are being used to shape the tree. What has come out of those discussions is the complexity and nuance of determining exactly which kinds of habitat restoration are most appropriate.

"The decision tree is a way of simplifying those questions and narrowing down what are the decision points that a practitioner may have internalized about what is an appropriate or feasible restoration and to get people to think about what factors those decisions are being based on," said Weston. "Decisions they make inside their own heads that they might barely even know they're thinking about. What's the substrate? How big is this watershed? Those kinds of questions."

The NSSA were approved for a grant of $47,932 from the ASCF, of which roughly half has currently been administered. Due to the complexity of this project (and some unfortunately timed staff changes at the NSSA), the project is now expected to be completed in 2023.

"It's quite a challenging undertaking, but we feel it will be a very valuable tool for people and I've actually had a lot of feedback from people looking forward to it," said Weston.

Nova Scotia Salmon Association

GRANTS & STATUS

2022 Project Grants

Science Advisory Committee

Project Number: SAC-2021-01
Recipient: INRS (St-Hilaire)
Title: Development and implementation of a modelling tool to investigate how freshwater ecosystems (e.g. temperature, hydrology, land-use practices) influence wild Atlantic salmon populations
Approved amount: $47,884 for 2022 (2 of 3 year project; total: $143,652)
Funding provided to date: $47,884
Summary: This project aims to develop and implement a model that will 1) simulate historical flows and water temperature on index rivers identified by the ASRJV, with some, few or no historical data; 2) expand the modelling effort to a large (up to 20) number of Atlantic salmon rivers; and 3) generate future scenarios of Atlantic salmon freshwater habitat conditions in the context of climate change.

Project Number: SAC-2021-02
Recipient: Nova Scotia Salmon Association
Title: Development of a decision-tree to guide stream restoration interventions
Approved amount: $27,966 for 2022 (2 of 2 year project; total: $47,932)
Funding provided to date: $19,966
Summary: This project will include the development of a decision-tree to guide salmon restoration implementation that will be refined using knowledge and understanding of salmon restoration through the Adopt-A-Stream program, as well as contributions from science-experts and stakeholders across North America. Existing work will be incorporated to identify priority areas for salmon restoration and test the applicability of the decision-tree under these realistic scenarios. Ultimately, a web-based tool will be created to make the decision-making process surrounding salmon restoration efficient, accessible, customizable and scalable for a range of end-users.

Project Number: SAC-2021-03
Recipient: University of New Brunswick (Curry & Samways)
Title: Lower trophic level subsidies for juvenile Atlantic Salmon production: Can primary and secondary production be linked to juvenile salmon production?
Approved amount: $29,217.60 for 2022 (2 of 3 year project; total: $65,297)
Funding provided to date: $49,065
Summary: This project will amalgamate existing data, create a public database and then examine the potential relationships between juvenile production and lower trophic level production with the goal to add this factor to modelling of juvenile production for fisheries managers. By testing potential linkages between juvenile production and lower trophic level productivity across climatic and geologic gradients, changes in the spatial and temporal elements of habitat will be examined on how it affects the overall juvenile productivity.

Project Number: SAC-2022-01
Recipient: Dalhousie University (Kurylyk)
Title: Designing, building and monitoring thermal refuges in an era of warming rivers
Approved amount: $20,000 for 2022 (1 of 3 year project; total: $98,624)
Funding provided to date: $20,000
Summary: Thermally stable patches in rivers, known as thermal refuges, are used by cold-water species like Atlantic salmon to alleviate thermal stress in the summer and winter through behavioural thermoregulation. We will refine, implement and assess some of the theoretical recommendations previously made for creating and enhancing Atlantic salmon thermal refuges through in-stream or riparian zone alterations in the West River Sheet Harbour, Nova Scotia and potentially in the nearby Moser or St. Mary's Rivers. These refuge designs will be based on thermo-hydrological and ecological principles and monitored using state-of-the-art thermal sensing technology and underwater cameras.

Project Number: SAC-2022-02
Recipient: Memorial University of Newfoundland and Labrador (Scott)
Title: Assessing and modeling within and among stream variability in insect drift availability of western Newfoundland streams
Approved amount: $39,467 for 2022 (1 of 3 year project; total: $107,551)
Funding provided to date: $39,467
Summary: The proposed research will examine the distribution and abundance of stream insect drift within and among streams in western Newfoundland flowing into the Bay of Islands (near Corner Brook). This variability will be combined with site and reach level steam, riparian and basin characteristics (collected at each site for local scale and from digital landscape images for reach and basin scale) to construct a geospatial model of juvenile stream habitat based on Bayesian and random forest modelling procedures.

Project Number: SAC-2022-03
Recipient: University of New Brunswick Saint John (van Zyll de Jong)
Title: Climate change vulnerability assessment framework to support the conservation of Atlantic salmon in rivers
Approved amount: $12,000 for 2022 (1 of 2 year project; total: $28,000)
Funding provided to date: $6,000
Summary: The objective of the research is to adapt the National Marine Fisheries Service climate change vulnerability assessment framework (VAF) [18] to determine vulnerability of wild Atlantic salmon in Atlantic Canada. The outcome of the project is a spatial explicit vulnerability assessment framework that informs the design of adaptive options at the river specific level in conjunction with stakeholders.

GRANTS & STATUS

2022 Project Grants

New Brunswick

Project Number: NB-2021-15
Recipient: Wolastoqey Nation
Title: Identification and prioritization of barriers inhibiting fish passage within the St. John Watershed
Approved amount: $12,000 for 2022 (2 of 2 year project; total: $29,000)
Funding provided to date: $23,000
Summary: This project presents a framework in using publicly available LiDAR and orthophotography to locate and identify road crossings and evaluate fragmentation and passability for various fish species at the landscape-scale. This approach provides a valuable and cost-effective means of identifying potential stream crossing issues for multiple management objectives, e.g., fish passage and thus the approach is an important step in the development of prioritization tools for restoration decisions by resource managers.

Project Number: NB-2022-01
Recipient: Atlantic Coastal Action Program Saint John
Title: Letting rivers run wild: Removing fish passage barriers in two inner Bay of Fundy (iBoF) rivers
Approved amount: $10,000
Funding provided to date: $10,000
Summary: Threats to Atlantic salmon in these watersheds include natural barriers to fish passage (i.e., debris jams, beaver dams) and bank erosion. This project focused on priority restoration actions from ACAP's recent management plans for these watersheds, which involved the removal and modification of fish passage barriers as well as improvement of riparian areas. Surveys of salmon presence, abundance and genetic identity were conducted.

Project Number: NB-2022-02
Recipient: Belleisle Watershed Coalition
Title: Assessing barriers to fish passage in the Upper Belleisle watershed
Approved amount: $10,000
Funding provided to date: $10,000
Summary: The purpose of 'Assessing Barriers to Fish Passage in the Upper Belleisle Watershed' was to identify, assess and delineate barriers to fish passage in the upper Belleisle watershed. Specifically, the nature of this project was to identify and assess barriers to fish passage and create a database of these barriers that will be used to prioritize future fish habitat restoration projects.

Project Number: NB-2022-03
Recipient: Conseil de Gestion du Bassin Versant de la Rivière Restigouche
Title: Opening of spawning habitat by breaching beaver dams
Approved amount: $10,000
Funding provided to date: $10,000
Summary: With aerial surveys and technology tools, dams were localized on the Patapédia, Upsalquitch and Kedgwick sections of Restigouche River. A report was drafted to summarize the year results in terms of habitat opening and program success. Electric fishing results on the increase of juvenile salmon population of previous years was be included in the report. A salmon passage device was tested on a beaver dam to determine its efficiency. Some targeted trapping activities helped decrease the beaver population on some tributaries.

Project Number: NB-2022-04
Recipient: Fort Folly First Nation
Title: Restoring endangered inner Bay of Fundy Atlantic salmon to the Petitcodiac River watershed
Approved amount: $50,000
Funding provided to date: $25,000
Summary: Carry out iBoF Atlantic salmon recovery actions on Petitcodiac River tributaries

- Assessments; use Rotary Screw Trap &/or counting fence, fyke nets with mark/recapture protocol, electrofishing surveys, snorkel surveys, redd surveys and antenna pit tag detection arrays.
- Collections; Smolts and fall parr.
- Releases; un-fed fry and mature adults.

All activities contributing to the continuing strategy & objective of realizing higher presence, at all life stages, of endangered iBoF Atlantic salmon in the Petitcodiac River watershed working towards achieving self-sustaining levels within Petitcodiac River tributaries.

Nashwaak Watershed Association Inc. - NB

GRANTS & STATUS

2022 Project Grants

Project Number: NB-2022-05
Recipient: Friends of the Kouchibouguacis
Title: Wild Atlantic salmon: Population recovery, monitoring and stewardship – Kouchibouguac and Jouchibouguacis watersheds
Approved amount: $39,584
Funding provided to date: $39,584
Summary: Restoration work improved habitat quality and fish passage, including a stream restoration initiative consisting of two culvert replacement and the removal of numerous obstructions (e.g. inactive beaver dams, debris jams, etc.) on ruisseau a baptiste within the Kouchibouguacis watershed to provide critical spawning grounds and habitat for Atlantic salmon among other species (stream restoration plan included with submission separately for reference). Different means were applied towards educational and outreach efforts.

Project Number: NB-2022-06
Recipient: Kennebecasis Watershed Restoration Committee
Title: Putting science behind riparian restoration efforts
Approved amount: $20,000
Funding provided to date: $20,000
Summary: The KWRC worked to identify degraded riparian zones on agricultural ground along Trout Creek and worked with landowners to implement Better Management Practices that improve natural conditions of valuable ecological areas. Bank stabilization, tree planting, invasive species monitoring and plastic/litter removal, took place on the lower sections of Trout Creek which is home to trout, Atlantic salmon and American eel.

With landowner and volunteer support the KWRC improved environmental conditions so that the Creek and Atlantic salmon are better situated to combat ecological changes resulting from increased flooding and climate change.

Project Number: NB-2022-07
Recipient: Meduxnekeag River Association
Title: Assessing Atlantic salmon habitat suitability and presence in the Meduxnekeag River watershed
Approved amount: $10,865 for 2022 (1 of 2 year project; total: $16,865)
Funding provided to date: $5,432.50
Summary: During the first year of the project, we will complete CABIN and STREAM sampling in various locations throughout the main stem of the Meduxnekeag River and in several tributaries. Sampling locations will be chosen based on the results of surveys completed by DFO and HBMI. The results of CABIN and STREAM sampling will provide useful information about water quality and ecosystem health, allowing us to better focus our efforts during year 2. During the second year of the project, we will use eDNA sampling to detect the presence of Atlantic Salmon. Sampling sites will be chosen based on the CABIN and STREAM results from the previous year.

Project Number: NB-2022-08
Recipient: Miramichi River Environmental Assessment Committee
Title: Atlantic salmon conservation strategy – Tomognops River
Approved amount: $12,440
Funding provided to date: $12,440
Summary: MREAC prepared an Atlantic Salmon Conservation Strategy for Atlantic salmon on the Tomogonops River, tributary to the Northwest Miramichi River, NB. MREAC completed additional temperature monitoring, two in-stream fish habitat assessments (one km each) and current land-use mapping. Project research informed MREAC of other available data sets pertinent to the plan including that from the mining sector, historically having the most significant impact on the Tomogonops sub-watershed.

Project Number: NB-2022-09
Recipient: Miramichi Salmon Association
Title: Atlantic salmon smolt research on the Miramichi river 2022
Approved amount: $10,000
Funding provided to date: $10,000
Summary: Adult Atlantic salmon returns to the Miramichi River in 2019 were the lowest on record, according to DFO (Fisheries and Oceans Science Branch), with 2020 numbers stating the same. Understanding if smolt targets are being met for the Northwest Miramichi, which has had the poorest adult returns for decades, is important for determining if lack of smolts leaving the river is responsible for the reduced number of adults returning or if it is mortality of smolts migrating to the ocean and back. Smolt production on the Northwest Miramichi River were estimated.

Project Number: NB-2022-10
Recipient: Nashwaak Watershed Association
Title: Assessing and restoring aquatic connectivity in the Nashwaak watershed
Approved amount: $15,225
Funding provided to date: $15,225
Summary: This project built on our successes over the last five years in assessing and improving fish passage in the Nashwaak watershed. Our strategy for improving aquatic connectivity employs a comprehensive and collaborative approach. We work closely with the Department of Transport and Infrastructure, local Wolastoqey groups as well as other environmental NGOs to identify and prioritize barriers for fish passage remediation. Data collected by surveying is combined into our GIS database and informs future priority barriers for remediation.

Project Number: NB-2022-11
Recipient: Nashwaak Watershed Association
Title: Post-dam removal monitoring and restoration of Campbell Creek
Approved amount: $11,900

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2022 Project Grants

Funding provided to date: $11,900
Summary: This project seeks to build on the successful removal of Campbell Creek Dam and restoration of fish passage to the creek in 2021. Tasks included: 1. Post-dam removal monitoring to evaluate and facilitate the success of the project. 2. Restoration and stabilization the banks of the creek, as needed. 3. Installation of heritage display for public outreach.

Project Number: NB-2022-12
Recipient: Nepisiguit Salmon Association
Title: Nepisiguit salmon enhancement and assessment
Approved amount: $12,500
Funding provided to date: $12,500
Summary: The objectives of the 2022 project were to open up as many km of suitable salmon habitat as possible by breaching abandoned beaver dams and produce 80,000 swim up fry for our incubation boxes. We continued to electrofish the Nepisiguit and local rivers and collect environmental data. Continued to work at preparing historical data for our proposed data base. Continued public education with our Newsletter and Fish Friends program. Continued to use our Facebook page to inform anglers on warm water protocols and up to date information, continued to use drones to inventory fish passage obstructions and continued to develop a methodology to use drones to count redds.

Project Number: NB-2022-13
Recipient: North Shore MicMac District Council Inc.
Title: Miramichi River cold-water enhancement program
Approved amount: $35,000
Funding provided to date: $17,500
Summary: The project team seeks to address the warm water issue and create a climate-change-resilient river system. This will be accomplished by enhancing cold-water habitats to serve as thermal refugia for adult and juvenile Atlantic salmon during high temperature events. The program will identify 11 refugia sites with high potential to serve as more effective refugia and then implement enhancement work using principles of fluvial geomorphology to ensure sustainable, long-lasting projects to benefit the future of wild Atlantic salmon.

Project Number: NB-2022-14
Recipient: Oromocto River Watershed Association
Title: Monitoring and assessment of Atlantic salmon populations
Approved amount: $10,000
Funding provided to date: $10,000
Summary: The Atlantic salmon in the Oromocto River (Welamukotuk) are listed as endangered by COSEWIC and we have a duty to protect them while educating others of their continued presence. Using closed site electrofishing ORWA focused on ascertaining population densities of Atlantic salmon in sites that have historically healthy populations, good water quality and adequate water temperatures. This allowed focusing of future resources to those areas which require additional work, such as culvert remediation or removal, additional buffer zones, or public education.

Project Number: NB-2022-15
Recipient: Petitcodiac Watershed Alliance Inc.
Title: Broken brooks – Improving habitat access and quality for inner Bay of Fundy Atlantic salmon through innovative remediation techniques
Approved amount: $10,000
Funding provided to date: $10,000
Summary: The PWA continued to identify and remove problematic structures in Jonathan Creek. Furthermore, with the experience received from last year's training course on bank stabilization techniques, PWA replaced conventional bank stabilizers with improved, nature-based alder weaving structures and added structures where necessary. Finally, the PWA continued to collect aquatic connectivity data at watercourse-crossing sites in our watershed to expand inner Bay of Fundy (iBoF) Atlantic salmon recovery efforts.

Project Number: NB-2022-16
Recipient: Miramichi River Environmental Assessment Committee
Title: Atlantic salmon conservation strategy – Coal Branch River
Approved amount: $11,890
Funding provided to date: $11,890
Summary: The Miramichi River Environmental Assessment Committee produced an Atlantic Salmon Conservation strategy for the Coal Branch River, tributary of the Richibucto River. This strategy report was proceeded by a season of monitoring and assessment that included river temperature profiles, habitat assessments on selected river reaches, electro-fishing results, a land-use assessment, identifying fish impoundment, removals of unused beaver dams and determined limiting factors for salmon survival.

Project Number: NB-2022-17
Recipient: Shediac Bay Watershed Association
Title: Supporting Atlantic salmon population in the Shediac Bay watershed through integrated watershed management planning
Approved amount: $9,500
Funding provided to date: $9,500
Summary: The 2018 fisheries management plan was here updated with new data and will add historical data on the Weisner Brook. Habitat restoration focused on riparian zone reforestation. Signage was created to educate anglers on a variation order on this brook that prevents any retention of salmonids caught. The SBWA performed electrofishing surveys in priority areas.

Project Number: NB-2022-18
Recipient: University of New Brunswick (O'Sullivan & Linnansaari)
Title: Establishing river by river, ecologically meaningful temperature triggers for behavioural thermoregulation in juvenile Atlantic salmon

Approved amount: $31,600 for 2022 (1 of 2 year project; total: $51,600)
Funding provided to date: $41,600
Summary: Recent work by O'Sullivan et al., (in review) found the temperatures that trigger behavioural thermoregulation in juvenile Atlantic salmon at a site on the Miramichi River can vary throughout a summer – see Figure 1. As our understanding of the mechanisms that underlie these processes has grown, it is now evident that (a) we cannot apply a spatially homogenous threshold for behavioural thermoregulation across the range of Atlantic salmon, and (b) even if different thresholds are defined for individual rivers, these are not static; rather they will flux throughout a summer. This new knowledge challenges our current management paradigm, where the same temperature thresholds are used to manage Atlantic salmon throughout eastern Canadian rivers, e.g., (DFO, 2012).

Newfoundland & Labrador

Project Number: NL-2020-03
Recipient: Canadian Parks and Wilderness Society of Newfoundland and Labrador
Title: Special Aquatic Areas (SAA) in Newfoundland and Labrador interactive map
Approved amount: $12,500 for 2022 (3 of 3 year project; total: $98,224)
Funding provided to date: $95,099
Summary: The Special Aquatic Areas (SAA) Interactive Map will be a beneficial tool for an array of users, hosting data layers of aquatic industry activities, habitats, protected areas, tourism and more. It will focus on providing users with knowledge of salmon rivers (and historic salmon rivers), population trends, freshwater quality such as temperature, scheduled salmon rivers and be able to visualize the interaction these concepts have with human activities and habitats in Newfoundland and Labrador.

Project Number: NL-2022-01
Recipient: Environment Resources Management Association
Title: Fish Friends revival
Approved amount: $11,824
Funding provided to date: $11,824
Summary: For the 2022-year, ERMA proposed to revitalize the Fish Friends program to include up to six groups in central Newfoundland. Participating groups were supplied with incubating systems (tanks and incubators) and ERMA team members delivered fertilized salmon eggs. Students then learned and observed the life cycle, raising salmon to the "fry" stage before returning them to the Exploits River watershed.

Project Number: NL-2022-02
Recipient: Environment Resources Management Association
Title: Assessment of current status of Atlantic salmon redds in the key tributaries of the Exploits River watershed
Approved amount: $17,188
Funding provided to date: $17,188
Summary: Counts of Atlantic salmon redds and spawning fish were undertaken in the fall within three tributaries of the Exploits River watershed to build on data from the last redd survey conducted in 1993 (Bourgeois, Murray, & Mercer). Redds and spawning salmon were counted simultaneously as field team members walked river banks in an upstream direction, recording information onto a map and utilizing a drone to provide aerial footage to plot out habitat and possible obstructions. An assessment was made and recorded by the field team to give an indication of whether the survey gives a true reflection of the site given the conditions and if the data should be treated as quantitative or qualitative.

Project Number: NL-2022-03
Recipient: Freshwater-Alexander Bays Ecosystem Corporation
Title: High resolution temperature monitoring for Atlantic salmon habitat on Terra Nova River
Approved amount: $48,100 for 2022 (1 of 2 year project, total: $86,440)
Funding provided to date: $67,270
Summary: This two-year project will develop a high-resolution profile of water temperature and level conditions in the Terra Nova River watershed. This will help to identify locations where water conditions constitute a threat to salmon survival and migration as well as areas of cooler and deeper water that provide refuge against inhospitable conditions or may offer opportunities to enhance or create refuge sanctuaries. Two staff will fill out their time with ground-level fieldwork to assess identified obstructions, other problem areas, and aquatic and terrestrial conditions in the vicinity of cold water sources entering the river.

Project Number: NL-2022-04
Recipient: Humber Arm Environmental Association Inc.
Title: Reducing harmful debris in freshwater systems throughout Long Range Mountains region, Newfoundland
Approved amount: $30,755
Funding provided to date: $30,755
Summary: Through this project ACAP Humber Arm collected baseline data on types and quantities of debris adversely affecting freshwater systems throughout the Long Range Mountains regions, while simultaneously improving Atlantic salmon habitat through the removal of these pollutants. This project established locations on fish bearing waterways from Burgeo on the southwest coast to Hare Bay on the northern tip of the Northern Peninsula. These locations were selected based on their ecological significance as well as areas with high anthropogenic traffic (i.e., fishing, swimming boating, neighbouring developments, known illegal dumping). Data collected was shared with neighbouring municipalities, NGOs and publicly through social media. Such data is valuable for public awareness and crucial to inform future targeted diversion programs.

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2022 Project Grants

Project Number: NL-2022-05
Recipient: Indian Bay Ecosystem Corporation
Title: Northwest Brook revival
Approved amount: $30,692
Funding provided to date: $30,692
Summary: Northwest Brook is one of two major scheduled salmon rivers within our immediate area (Indian Bay River bring the other) and had not had any major restoration work or repairs since 2015. Approximately 8kms of the Brook leading to the Atlantic Ocean required site exploration, where we expected repairs to be required to improve water flow (salmon migration upstream), removal of debris (trees, boulders restricting flow, potential manmade obstacles), installed in-stream structures and repaired previously installed in-stream structures (tree deflector, digger logs, rock walls, etc.). Now that this work is complete, Northwest Brook should be free of issues for salmon migration, hence only requiring periodic checks.

Project Number: NL-2022-06
Recipient: Intervale Associates Inc.
Title: Living rivers: Education, signage and habitat assessment for Atlantic salmon and salmon habitat in Newfoundland and Labrador
Approved amount: $32,000
Funding provided to date: $32,000
Summary: Intervale's project objectives, through its "Living Rivers" initiative, were: 1) encourage reports of illegal fishing and sale of wild salmon 2) reduce threats to salmon habitat on select rivers of southwestern Newfoundland; 3) teach salmon conservation and best practices for preventing harm; 4) conduct a habitat assessment for an important tributary of Harry's River; and 5) motivate and engage people in stewardship of salmon rivers.

Project Number: NL-2022-07
Recipient: Northeast Avalon Atlantic Coastal Action Program
Title: Assessing the habitat quality for Atlantic salmon in the Waterford River
Approved amount: $17,185
Funding provided to date: $17,185
Summary: NAACAP identified and assessed barriers to salmon migration, monitored water quality and assessed damage/changes to the riverbed of the lower reaches of a St. John's urban historic salmon river, the Waterford River. This was in response to the changing seasonal fluctuations in precipitation and temperature in addition to increasingly common extreme hydrological events as predicted in climate change forecasts for Eastern Newfoundland. The goal of the project was to assess the viability of future habitat enhancements to ensure successful salmon introductions in the years to come.

Project Number: NL-2022-08
Recipient: St. Anthony Basin Resources Inc.
Title: Salmonid counting fence on Parker's River Newfoundland and Labrador, year 2
Approved amount: $50,000 for 2022 (1 of 2 year project, total: $100,000)
Funding provided to date: $75,000
Summary: Parker's is home to NL's southernmost anadromous population of char, salmon and Brook trout. These salmonids are subject to cumulative stressors (fishing, climate change and habitat degradation). Citizens recently highlighted new threats that have emerged for this riverscape: salmonids have suffered die-offs at the river mouth. An assessment was preformed and restoration project executed in Fall 2021. DFO has ongoing community-based monitoring plans in this system including temperature and environmental DNA monitoring. A counting fence is needed to understand the current status of Parker's salmonid populations. One was funded in 2021, however a high-water event affected the accuracy of the final count.

St. Anthony's Basin Resources Inc. - NL

Project Number: NL-2022-09
Recipient: Salmonid Preservation Association for the Waters of Newfoundland
Title: Deadwater Brook obstruction removal
Approved amount: $5,700
Funding provided to date: $5,700
Summary: Deadwater Brook is a major tributary of the Upper Humber River; it flows into the southwest corner of Adies Pond. Past pulp and paper cutting, lumbering, beaver cuttings and natural processes have contributed to wood flowing downstream and creating significant obstructions. Further collections of wood at the site turned this into a significant project. The current blockage is 20-25 feet wide and about 6 ft high. We estimate it took take an experienced chain saw crew of 4, 5 days, 10-hour days to cut and remove the obstruction.

GRANTS & STATUS

2022 Project Grants

Project Number: NL-2022-10
Recipient: Salmonid Preservation Association for the Waters of Newfoundland
Title: Casting & conservation with TLTL: Introducing Atlantic salmon conservation and fly fishing to the youth in Western Newfoundland
Approved amount: $11,000
Funding provided to date: $11,000
Summary: SPAWN prepared a program to present to youth in a school setting; grades 4-6. The program was designed to introduce youth to Atlantic salmon, the importance of conservation, habitat, threats to species and the role that youth can play in the survival of Atlantic salmon. We taught stream side safety, casting, fly tying, catch and release principles and river-based stewardship.

Project Number: NL-2022-11
Recipient: Stewardship Association of Municipalities Inc.
Title: Municipal leadership in conservation of Atlantic salmon riparian habitat
Approved amount: $25,000 for 2022 (1 of 3 year project, total: $75,000)
Funding provided to date: $37,500
Summary: In 2020, SAM undertook a province-wide GIS analysis to detect and prioritize Atlantic salmon habitat found within NL municipal planning boundaries. Over the course of this proposed 3-year project we intend to target additional municipalities, seeking to sign agreements which will conserve an additional 3000 acres of salmon aquatic and riparian habitat during the course of the project. Each agreement will be supported by a Habitat Conservation Plan whose central tenants is then incorporated within municipal planning documents and associated development regulations, centrally resulting in appropriately zoning the protected habitat to prevent future development from degrading or destroying these areas.

Nova Scotia

Project Number: NS-2022-01
Recipient: Antigonish Rivers Association
Title: Pinevale Brook aquatic restoration & monitoring
Approved amount: $18,500
Funding provided to date: $18,500
Summary: Within the South River watershed two important issues were prioritized for restoration work in 2022; first was the absence of a wooded buffer zone along the main channel due to agricultural activity and the second issue was the absence of high-quality spawning and juvenile rearing habitat found in Pinevale Brook, the largest tributary to the South River. Work in Pinevale Brook included the installation of digger logs and deflectors. Riparian zone work restored a buffer zone along 100 meters of the South River and also enhanced 500 meters of previously stabilized (armour rocked) bank through the planting of 2000 willows.

Project Number: NS-2022-02
Recipient: Atlantic Coastal Action Program Cape Breton
Title: Mira watershed restoration plan
Approved amount: $31,000
Funding provided to date: $31,000
Summary: The Species at Risk Habitat Enhancement Program (SARHEP) is ACAP's strategy for monitoring and habitat restoration with a focus on Atlantic salmon and other species at risk within their habitat. The project included a Mira watershed plan, Atlantic salmon habitat restoration, stream connectivity remediation and public education including tours of habitat restoration structures and experiential learning with a focus on building youth and partner capacity in the field of ecological restoration. Restoration included habitat enhancement structures like digger logs, deflectors, and covered banks, connectivity/access restoration such as debris jam removal, beaver dam notching, culvert remediation, and finally, riparian zone restoration.

Project Number: NS-2022-03
Recipient: Bluenose Coastal Action Foundation
Title: Understanding and restoring connectivity for Atlantic salmon in the Gold River watershed
Approved amount: $12,000
Funding provided to date: $12,000
Summary: This project focused on watershed information and database development within the Gold River Watershed. Through fish passage assessments, the creation of a Gold River Watershed aquatic connectivity database was built. This database could be used for future production of a Gold River Watershed Plan, assisting in prioritizing potential restoration opportunities for additional projects. Additionally, Coastal Action installed fish passage improvement structures, such as chutes and baffles, to culverts in the Gold River Watershed impeding fish passage. Finally, Coastal Action delivered public educational presentations, to youth and young adults in the community, regarding Atlantic salmon conservation and watershed health.

Project Number: NS-2022-04
Recipient: Bluenose Coastal Action Foundation
Title: Restoring connectivity for Atlantic salmon in the LaHave River watershed
Approved amount: $12,000
Funding provided to date: $12,000
Summary: Under the project, Coastal Action focused on 1) identifying new areas which are providing suitable salmon habitat; 2) reviewing and updating previously collected aquatic connectivity data within the LaHave stream crossing database, as well as updating and revamping the aquatic connectivity section of previously developed Sub-watershed restoration plans; 3) conducting electrofishing surveys at both newly identified barriers and at sites where fish passage

improvement structures have been installed; 4) restoring in-stream habitat in identified salmon nursery areas; and 5) coordinating public education in the form of workshops and presentations.

Project Number: NS-2022-05
Recipient: Cheticamp River Salmon Association
Title: Work towards mitigating potential climate change impacts in the Cheticamp River watershed & revision and expansion of a watershed-based restoration plan for Aucoin Brook
Approved amount: $12,000
Funding provided to date: $12,000
Summary: CRSA proposed three primary objectives for its 2022 project: 1. Improve fish passage on the Cheticamp River and Farm Brook at locations where elevated summer water temperatures combine with low flow conditions. 2. Increase monitoring of coldwater inputs identified as part of recent project thermal mapping activities on the Cheticamp River and develop more detailed plans for future coldwater habitat enhancement. 3. Due to significant changes caused by a 2015 flood, undertake a significant expansion of a 2014 watershed-based restoration plan for Aucoin Brook.

Project Number: NS-2022-06
Recipient: The Confederacy of Mainland Mi'kmaq – Mi'kmaw Conservation Group
Title: Restoration of Atlantic salmon habitat in the Stewiacke watershed
Approved amount: $10,000
Funding provided to date: $10,000
Summary: The MCG used their existing dataset of habitat information to identify areas where large woody debris has created barriers to fish migration. At these identified sites, native seedlings were planted alongside debris removals in areas deemed to have insufficient riparian zones or actively eroding banks. Water quality loggers were placed at sites planned to have debris removals pre- and post- removal to collect data on the changes in water quality. Community members and youth were engaged in stream stewardship through a community stream clean up and activities that raise awareness about migration barriers and habitat degradation.

Atlantic Coastal Action Program Cape Breton - NS

Project Number: NS-2022-07
Recipient: Inverness South Anglers Association
Title: Mull River habitat restoration
Approved amount: $22,000
Funding provided to date: $22,000
Summary: ISAA planned to begin restoration work in the headwaters, which is approximately 21.22 square kilometers in size. ISAA restored an approximate area of 5,500 square kilometres of stream habitat resulting in 14 structures installed. The restoration techniques used include the installation of digger logs, deflectors, rock sills and hand rocking stream banks for stabilization.

Project Number: NS-2022-08
Recipient: Nova Scotia Salmon Association
Title: The West River acid mitigation project
Approved amount: $21,000
Funding provided to date: $21,000
Summary: The West River was developed as a model for the restoration of acid-stressed rivers in the region and we in the process of planning for similar projects on 7 other priority watersheds. We require defensible and scientifically-sound monitoring data to assess the impact of restoration activities. This project supported: (a) the spring smolt estimation program, (b) a fall electrofishing program, and (c) a fall redd count program.

Project Number: NS-2022-09
Recipient: Sackville Rivers Association
Title: River restoration 2022
Approved amount: $21,628
Funding provided to date: $21,628
Summary: The project provided fish habitat restoration, through the installation of habitat restoration structures (hand-installed digger-logs/rock sills) on two watercourses in the Sackville River Watershed – Peverills Brook and Little Sandy Lake Brook. Peverills Brook is the largest feeder brook to the main Sackville River and this project will complete our restoration plan for this watercourse – a plan 10 years in the making on Peverills Brook.

Prince Edward Island

Project Number: PE-2021-04
Recipient: Morell River Management Cooperative
Title: Creating an Atlantic salmon management plan for the Morell river watershed
Approved amount: $22,500 for 2022 (2 of 2 year project; total $44,000)

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Funding provided to date: $32,750
Summary: The goal of this project is to create a comprehensive salmon management plan for the Morell Watershed to guide the future salmon conservation and habitat enhancement work of the Morell River Management Cooperative. This will include gathering historical data, completing habitat assessments, and creating river maps with detailed notes. The management plan will include restoration and enhancement recommendations for each branch of the river.

Project Number: PEI-2022-01
Recipient: Central Queens Branch of the PEI Wildlife Federation
Title: Restoration and monitoring of Atlantic salmon spawning habitat on the West River, PEI
Approved amount: $18,225
Funding provided to date: $18,225
Summary: The main goal of this project was based on enhancing and expanding spawning habitat for Atlantic salmon on the West River, PEI. CQWF continued to expand spawning habitat by installing structures (n=12) in areas that have marginal spawning habitat quality in order to increase embryo survival and juvenile recruitment. CQWF installed structures at a variety of depths to accompany a range of water levels for future spawning seasons. CQWF continued to maintain and enhance sections of the stream to continue the long-term salmon habitat restoration process. Lastly, two sediment traps (Ross Rd and Clyde River by-pass pond) were re-excavated.

Project Number: PEI-2022-02
Recipient: Cornwall and Area Watershed Group Inc.
Title: Atlantic salmon habitat restoration
Approved amount: $20,000
Funding provided to date: $20,000
Summary: CAWG completed groundwater spring excavation and headwater tree planting to increase environmental flows, increased shade, eliminated/reduced warm water events on Cole's Creek. Riparian management for Atlantic salmon habitat such as planting, pruning, mapping, addressing upland issues and invasive species on Watt's Creek and North River was completed. Angling access trail creation/replacement and Canoe Access replacement to promote safe angling and reduce bank erosion/sedimentation on North River was also completed.

Souris and Area Branch of the PEI Wildlife Federation - PEI

Project Number: PEI-2022-03
Recipient: Hillsborough River Association
Title: Atlantic salmon habitat restoration & enhancement phase 4
Approved amount: $16,408
Funding provided to date: $16,408
Summary: HRA maintained beaver-free zones on Pisquid and Clark's, continued working with landowners to expand beaver-free zones, raked 100m^2 to expose cobble, removed log jams to maintain fish access, continued temperature and nitrate monitoring, continued salmon redd surveys and electrofishing, and educated student employees, elementary school students and landowners.

Project Number: PEI-2022-04
Recipient: Souris and Area Branch of the PEI Wildlife Federation
Title: Atlantic salmon population baseline watershed survey in Hay River, phase 4
Approved amount: $24,000
Funding provided to date: $24,000
Summary: SAB carried out a 4th year of detailed monitoring in Hay River to compile Atlantic salmon data in a reference watershed to validate and challenge previous assumptions of populations numbers based on established formulas and data. Analyzing this monitoring data helped us to determine parallels between environmental conditions and limiting factors which will aid us in preserving and advancing salmon stocks in Prince Edward Island through future restoration and monitoring initiatives.

Project Number: PEI-2022-05
Recipient: Trout Unlimited Canada Prince County Chapter
Title: Atlantic salmon expansion initiative
Approved amount: $18,716
Funding provided to date: $18,716
Summary: TUCPCC provided improved access to habitat in the upper reaches of Caruthers Brook on both branches of the Knutsford Tributary. TUCPCC fielded a work crew in the stream to remove the alders and install brush mats to restore fish access to these branches and restore proper stream form and function. This project is part of a larger four-year initiative to increase habitat for Atlantic Salmon, monitor movements through out the systems by tagging and installing monitoring equipment, monitor water quality and quantity in the various systems, and improve riparian health through tree planting and other recommended practices.

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2022 Project Grants

Québec

Project Number: QC-2020-01
Recipient: Conseil de la Nation huronne-wendat
Title: Identification and characterization of thermal refuges potentially used by salmon in Jacques-Cartier River
Approved amount: $5,080 for 2022 (3 of 3 year project; total: $32,620)
Funding provided to date: $32,620
Summary: The goal of this project was to complete an inventory of thermal refuges in Jacques-Cartier River and its main tributaries using a thermal camera attached to a helicopter and to characterize this sensitive habitat by aquatic and terrestrial monitoring to identify key zones for resource conservation. The specific objectives of the project were to locate thermal refuges, identify and characterize them, validate their use by salmon, and prioritize them for resource protection and conservation.

Project Number: QC-2020-02
Recipient: Corporation de gestion de la rivière à saumon des Escoumins
Title: Characterize short-term and long-term sediment transport to restore hydrogeomorphological (HGM) processes in order to improve Atlantic salmon habitat
Approved amount: $8,000 for 2022 (3 of 3 year project; total: $24,000)
Funding provided to date: $20,000
Summary: The goal of the project is to solve the most urgent problem identified in the conservation plan developed in 2019, namely the lack of habitat especially for juveniles. This project will analyze historic hydrogeomorphological pathway of the Escoumins River using aerial photos and analyze the sediment dynamics using a morphologic approach as well as active transponders. Ultimately, this information will be used to develop a preliminary plan that shows targeted and relevant interventions and the prioritization of these activities.

Organisme des bassins versants de la Haute-Côte-Nord - QC

Project Number: QC-2020-09
Recipient: INRS (St-Hilaire)
Title: Salmon habitat in Nunavik
Approved amount: $10,000 for 2022 (3 of 3 year project; total: $30,000)
Funding provided to date: $20,000
Summary: Climate change is leading to major changes which may increase the number of Atlantic salmon in Nunavik watercourses. This project will give managers an initial appreciation of future changes related to availability of salmon habitats in Nunavik. To this end, we will 1) use models to generate future water temperature scenarios for Nunavik major watercourses, 2) select rivers that might show an adequate thermal system for salmon in the 2050-2100 window and 3) using remote sensing data, complete an initial assessment of quality of new habitats.

Project Number: QC-2021-01
Recipient: Corporation de gestion de la rivière Saint-Jean Saguenay:
Title: Characterization of the dynamics of sediment transport in Saint-Jean River, Saguenay
Approved amount: $11,656 for 2022 (2 of 3 year project; total: $30,000)
Funding provided to date: $6,672
Summary: The goal of this project is to characterize and to segment the river to restore natural river processes which are essential to the river dynamics of the watercourse. The method which is recommended consists in acquiring knowledge of the hydro-sediment dynamics, through interannual sediment balances, which will facilitate the characterization of the transportation intensity processes and the description of its evolution in time and in space. Finally, this will enable us to propose scenarios for restoring natural river processes to increase the morphological quality and in the longer term, to preserve, rebuild and reinstate salmon habitat in Saint-Jean River.

Project Number: QC-2021-03
Recipient: Fédération québécoise pour le saumon atlantique
Title: Développement d'une méthodologie d'évaluation de la sensibilité hydromorphologique liée à l'exploitation forestière des bassins versants des rivières à saumon de la Gaspésie et du Bas-Saint-Laurent
Approved amount: $19,320 for 2022 (2 of 2 year project; total: $48,300)
Funding provided to date: $38,640

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Summary: The project will focus on an assessment of watercourses hydro-morphological sensitivity in relation to logging operations with regards to Atlantic salmon habitat. The goal of this project is to provide managers (forestry, salmon rivers) with a decision-making tool specific to each watershed of salmon rivers in Gaspésie and Bas-Saint-Laurent to better protect salmon population habitat of these two areas and to complement general standards/rules to consider more specifically hydro-morphology features of each salmon river of Gaspésie and Bas-St-Laurent, in the province of Québec.

Project Number: QC-2021-04
Recipient: Gespe'gewaq Mi'gmaq Resource Council
Title: Localization and classification of all water crossings on Gaspésie territory: Use of Lidar technology
Approved amount: $19,800 for 2022 (2 of 2 year project; total: $50,350)
Funding provided to date: $50,350
Summary: This project helped develop an elevation numeric model of extreme precision with LiDAR data. Afterwards, GMRC created a new hydrographic model (more precise than current hydrolines). All water crossings (bridges, fords and culverts) were identified with an automated method. Then they classified the culverts inclination and identified perched culverts which act as a barrier for fish passage. This enabled the creation of a sites data bank for compensation and habitat restoration and environmental monitoring projects. Data is hosted on the interactive mapping already in place at GIRT Table.

Project Number: QC-2022-01
Recipient: Corporation du bassin de la Jacques-Cartier
Title: Education through the observation station of salmon in Jacques-Cartier River
Approved amount: $40,000
Funding provided to date: $20,000
Summary: The general objective is to inform visitors of the CBJC fishway and increase their awareness of the importance of Atlantic salmon populations in Jacques-Cartier River and of the challenges of their reintroduction. CBJC wants to improve visitors experience so that they be more receptive to the information it wants to share with them. More specifically, the objectives of this project are: 1. Create and install new educational and interpretation tools and furniture; 2. Set up a reception center and a roofed animation and education space with bleachers that can accommodate group of visitors; 3. Inform and educate more people about the importance of wild Atlantic salmon in Jacques-Cartier River and of the need to preserve its habitat.

Project Number: QC-2022-02
Recipient: Corporation de gestion des rivières Matapédia et Patapédia
Title: Restore salmon habitat at Les Marais pool, Causapscal River, phase 1
Approved amount: $30,000
Funding provided to date: $15,000
Summary: The Les Marais pool site makes it possible to continuously monitor and protect salmon held in the pool. Rehabilitation work of salmon habitat was separated in two phases. This proposal is for phase 1 and includes the following work and developments (see plans and specifications):

1. Access road and culvert;
2. Stop log, water diversion and sediments management;
3. Reprofiling the sediment bar (2,500 square meters);
4. Consolidating, rebuilding and reprofiling the bank before stabilization (stones type mg-80 and recovered stones on the sediment bar);
5. Stabilizing the left bank on 80 to 90 linear meters (geotextile and stones);
6. Stabilizing breaches and secondary channels on the left bank by installing thresholds.

Project Number: QC-2022-03
Recipient: Fédération québécoise pour le saumon atlantique
Title: Minimize the impact of culverts on Atlantic salmon habitat
Approved amount: $11,986 for 2022 (1 of 2 year commitment; total of $25,070)
Funding provided to date: $11,986
Summary: The project objective is to complete the inventory of water crossings in salmon rivers watersheds in Québec to evaluate their potential and known impacts on the fragmentation and the loss of Atlantic salmon habitat. That knowledge will be used to draw a regional picture of the state of water crossings and to produce a decision-making tool to guide the rehabilitation and development priority of these structures, in order to restore this salmonid habitat.

Project Number: QC-2022-04
Recipient: Fédération québécoise pour le saumon atlantique
Title: National strategy for counting fence deployment on Québec salmon rivers
Approved amount: $21,500
Funding provided to date: $10,750
Summary: The second generation automatic IchtyoS meter developed by WSP is an efficient tool to count the number of salmon entering in the river in summer, therefore the number of spawners which reproduce in the fall. Data on the run is essential for the river-by-river fine management undertaken by the government of Québec.

CMFFP has been using that technology to monitor salmon runs since 2017. It is a long-term project resulting from the Québec Atlantic salmon management plan 2016-2026.

FQSA cooperates closely with managers and MFFP in this large-scale national project.

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2016–2021 Project Grants

Project Number: QC-2022-05
Recipient: Fédération québécoise pour le saumon atlantique
Title: Awareness of the importance of wild Atlantic salmon and its habitats: first scientific forum of the FQSA
Approved amount: $23,600
Funding provided to date: $23,600
Summary: We held the first FQSA scientific Forum with the interuniversity Atlantic salmon research center (CIRSA), which took place in person and partially on the web. This event was a way to unite and an excellent opportunity for scientists, researchers, students, managers, fishermen and any curious person who wanted to learn more about issues faced by Atlantic salmon and its importance in the ecosystem of our rivers in Québec. We dealt with issues such as problematic issues and possible solutions for forestry, stocking, importance of hydrogeomorphology in habitat development and presentation of several projects and innovation techniques for the improvement and conservation of Atlantic salmon.

Project Number: QC-2022-06
Recipient: Organisme des bassins versants de la Haute-Côte-Nord
Title: Assess Atlantic salmon recruitment before restoring the river process
Approved amount: $25,000
Funding provided to date: $25,000
Summary: The goal of this project was to characterize the reproduction success of Atlantic salmon on Escoumins River with electric fishing to understand the species recruitment before restoring the natural processes of the river. This evaluation is an initial threshold to evaluate the impact of restoration on the number of juveniles.

Project Number: QC-2022-07
Recipient: Société de Restauration et de Gestion de la Nouvelle
Title: Plan for the conservation of Atlantic salmon and the enhancement of recreational fishing on Nouvelle River
Approved amount: $11,000
Funding provided to date: $11,000
Summary: The development of an Atlantic salmon conservation plan of Nouvelle River helped compile and analyze all studies, documents and articles on this river to draw a picture of the state of the salmon population and its habitat. This analysis identified the problems, the shortages and the issues specific to the river. The conservation plan was shared on paper and on the web with different local partners and all our data will be shared with the Conseil de l'Eau Gaspésie Sud, which is currently updating the PDE of Pabos rivers.

Project Number: QC-2022-08
Recipient: Société saumon de la rivière Romaine
Title: Romaine River salmon restoration program
Approved amount: $50,000
Funding provided to date: $50,000
Summary: Created in 2011, after the construction of Hydro-Québec dams on Romaine River, the mission of SSRR was to restore the salmon population of Romaine River and its main tributary Puyjalon. The targeted initiative was the annual stocking of fry. Since 2015, more than a million fry were stocked in these two rivers. A genetic follow up will, after the adult return, help collect scientific information on the salmon cycle.

Organisme de bassin versant du Saguenay - QC

Finally, the SSRR manages the Histoire du saumon program (of FQSA) in the schools of the Romaine River watershed. We will stock between 150,000 and 250,000 fry annually from 2022 to 2024 and to continue to do so depending on the remaining budgets

ASCF Grants 2016 – 2021

Note: This statement reflects only those projects that were completed in 2021 or are ongoing. All other projects from previous years have been finalized.

Scientific Advisory Committee

Project Number: SAC-2017-02
Recipient: Memorial University (van Zyll de Jong)
Title: Assessing the impact of instream barriers and climate change on wild Atlantic salmon population persistence and production in forested boreal watersheds
Approved amount: $23,300 for 2019 (3 of 3 year project; total: $63,300)
Funding provided to date: $57,475
Summary: The purpose of this project is to provide a comprehensive

understanding of the cumulative effect of road placement, instream barriers and climate change on wild Atlantic salmon population persistence and accessibility of suitable habitat. This knowledge will be used to develop a novel assessment methodology and decision-making framework.

Project Number: SAC-2018-01
Recipient: University of New Brunswick (Linnansaari & Curry)
Title: Effects of striped bass predation on Atlantic salmon smolts in the Miramichi River, NB
Approved amount: $26,200 for 2019 (2 of 2 year project; total: $59,003)
Funding provided to date: $59,003
Summary: This project built a smolt-threat based model that will estimate consumption of salmon smolts as a function of striped bass population numbers and size distribution (data from DFO collaboration), space (estuary / riverine spawning-grounds), time (relative to peak smolt migration; data from MSA and ASF), and environmental parameters such as water temperature, flows, and tides.

Project Number: SAC-2019-01
Recipient: University of New Brunswick (Gray)
Title: Atlantic Salmon embryo development and population assessment in the Tobique River Basin: potential for impacts from industry activities
Approved amount: $5,150 for 2021 (3 of 3 year project; total: $54,590)
Funding provided to date: $54,590
Summary: The Tobique River catchment is a major spawning area for Atlantic Salmon in northwestern NB and features industrial land-use practices adjacent to rivers. This project investigated a salmon embryo deformity phenomenon that has been observed in parts of the Tobique system. Relative abundance and condition of salmon populations was assessed. Additionally, salmon embryos were placed in incubators, buried in river substrates, and monitored for development and survival.

Project Number: SAC-2020-01
Recipient: Conseil de gestion du bassin versant de la rivière Restigouche
Title: Linking Equivalent Cut Areas with Atlantic salmon habitat quality in the Restigouche River watershed
Approved amount: $12,000 for 2021 (2 of 2 year project; total: $23,000)
Funding provided to date: $19,400
Summary: This project is studying the impact of the size and distribution of logging on Atlantic Salmon habitat. The calculation tool "Equivalent cut areas" (ECA) will be updated and the impact of different percentages of ECA on water regime and salmon habitat will be evaluated. Forest harvesting methods will be synthesized to develop mitigation measures. CGBVRR will also coordinate a workshop to bring together researchers studying the impact of forestry on salmon.

Project Number: SAC-2020-02
Recipient: Dalhousie University (Hutchings)
Title: Temperature-dependent effects of sea lice on Atlantic salmon
Approved amount: $40,350
Funding provided to date: $28,245
Summary: To investigate the temperature-dependent effects of sea lice on Atlantic salmon, a laboratory experiment was conducted in which juvenile Atlantic salmon were infected with sea lice across a range of temperatures. Using these results, this project will evaluate how temperature and sea-louse infestation affect stress and immune responses, growth, mortality, and organ development of Atlantic salmon.

Project Number: SAC-2020-03
Recipient: Dalhousie University (Sterling)
Title: Are toxic ionic aluminum concentrations increasing or decreasing in high priority salmon rivers in Nova Scotia
Approved amount: $49,805
Funding provided to date: $44,824.50
Summary: Ionic aluminium (Ali) is toxic to Atlantic salmon and is known to be a key cause of population declines. Total aluminum (Alt) consists of Ali + organically complexed aluminum (Alo). A critical knowledge gap remains: is Alo driving the Alt trends and Ali levels staying stable or decreasing? Or are Ali levels increasing as well? This project will answer this question by extend Ali monitoring programme in four key indicator NS Rivers, using models calibrated to field observed Ali concentrations to project Ali trends.

Project Number: SAC-2020-04
Recipient: Fédération québécoise pour le saumon atlantique
Title: Development of a methodology for assessing the hydro-geomorphological sensitivity associated with logging in the watersheds of the salmon rivers of Gaspésie and Bas-Saint-Laurent
Approved amount: $25,000
Funding provided to date: $25,000
Summary: This project conducted a literature review on: hydrogeomorphological and biological risks associated with forest harvesting; standards for minimizing the negative impacts; watershed assessment methods; and ecological risk analysis grids. The project proposed grids and/or decision trees and/or indicators to assess sensitivity as a decision-making tool. Geomorphological features of watersheds, forestry operations and forest hydrology considerations as well as river habitat of salmon were considered.

Project Number: SAC-2020-06
Recipient: University of New Brunswick (O'Sullivan & Curry)
Title: How physiography and climate change influences the effects of forest harvesting on Atlantic salmon habitats

Approved amount: $35,000 for 2021 (2 of 2 year project; total: $75,000)
Funding provided to date: $75,000
Summary: The project examined the influences of forest harvesting on stream flow, temperature, and geomorphology in differing physiographic regions in watersheds in the Edmundston Highlands, Chaleur Uplands, Miramichi Highlands, and the Maritime Plains. Gaining an understanding of how the landscape regulates hydrological processes was absolutely imperative to (a) identifying hydrological resilient regions (both flow and thermal), and (b) developing management plans that best protect habitats for Atlantic Salmon.

New Brunswick

Project Number: NB-2020-16
Recipient: University of New Brunswick (Linnansaari & Helminen)
Title: Effects of striped bass predation on Atlantic salmon smolts in the Miramichi River using new predation technology
Approved amount: $14,000 for 2021 (2 of 2 year project; total: $28,000)
Funding provided to date: $26,600
Summary: This project will use new 69 kHz acoustic "predation tags" to tag pre-smolt Atlantic salmon and follow their migration through the Miramichi estuary in two consecutive spring seasons when striped bass enter the river to spawn. Intensive active (CRI/UNB and the Anqotum) and passive (the ASF and the OTN) tracking will be utilized in spring. Predation tags produce explicit signal of predation occurrences, and a combination of receiver lines and active tracking will pinpoint the specific location of any predation events.

Friends of the Kouchibouguacis - NB

Project Number: NB-2020-03
Recipient: Conservation Council of New Brunswick
Title: Teaching New Brunswick children and youth about the Atlantic salmon and the need for conservation
Approved amount: $5,000
Funding provided to date: $3,750
Summary: CCNB has developed hands-on Atlantic salmon modules, each consisting of a number of outdoor activities that teach students about Atlantic salmon biology, its economic and cultural importance, and what we can do to help salmon populations survive and increase in number. In this project, CCNB will continue to deliver the curriculum linked salmon activities linked to existing curriculum outcomes around the province in elementary, middle and high school levels. CCNB will also purchase materials to create additional activity kits to be available for teachers to borrow.

Project Number: NB-2021-01
Recipient: Atlantic Salmon Federation
Title: Miramichi Smallmouth Bass Eradication
Approved amount: $10,000
Funding provided to date: $7,500
Summary: This project aims to eradicate invasive smallmouth bass from the Miramichi watershed. World-leading experts will be hired to develop a responsible, safe, and practical eradication plan using a Health Canada-approved rotenone product called Noxfish Fish Toxicant II; a common fisheries management tool used throughout the world each year. The project includes treatment of Miramichi Lake, Lake Brook, and a 15 km reach of the SW Miramichi River followed by deactivation to neutralize rotenone, and monitoring to evaluate success and ecological recovery, which typically occurs rapidly after the use of rotenone.

Project Number: NB-2021-04
Recipient: Friends of the Kouchibouguacis
Title: Population Recovery, Monitoring and Stewardship – Kouchibouguac and Kouchibouguacis Watersheds
Approved amount: $14,500
Funding provided to date: $14,500
Summary: Different sampling and monitoring initiatives were utilized to collect information on Atlantic salmon populations. The in-stream incubation program improved salmonid hatch rates, while also allowing for full life-cycle development in their natural habitat to occur and eliminating captivity requirements. Restoration work improved habitat quality and fish passage, and an updated Atlantic salmon conservation plan will be developed.

Project Number: NB-2021-14
Recipient: University of New Brunswick (Harrison)
Title: Assessing mortality and injury during turbine passage for Atlantic Salmon smolts passing downstream of Mactaquac Dam using autonomous "sensor fish"
Approved amount: $20,000
Funding provided to date: $14,000
Summary: This project will use autonomous "sensor fish" to quantify passage mortality and to better understand the physical conditions Atlantic salmon smolts experience during downstream turbine passage at Mactaquac Dam. This study will identify the precise location in the turbine where damaging forces (barotrauma, strike and shear forces) occur, and quantify how these forces differ among operating conditions (turbine power), and among approach depths. These metrics will then be compared with lab-based Atlantic salmon specific dose-response relationships to estimate mortality and injury.

Newfoundland & Labrador

Project Number: NL-2019-10
Recipient: Memorial University of Newfoundland (van Zyll de Jong)
Title: Evidence synthesis and analysis of river restoration effort in Newfoundland and Labrador
Approved amount: $18,000 for 2021 (3 of 3 year project; total: $64,000)
Funding provided to date: $55,000
Summary: This project aims to fill the gap of knowledge of the collection, synthesis, and evaluation of restoration projects as data can be fragmented or incomplete by building a database by cataloguing all projects in Newfoundland for the past 30 years. The research team will also undertake a survey with restoration practitioners to assess project motivations, metrics, and project evaluation to estimate the proportion of projects that set and met criteria for ecologically successful river restoration projects.

Project Number: NL-2020-05
Recipient: Environment Resources Management Association
Title: Rattling Brook creel census
Approved amount: $23,795 for 2021 (2 of 2 year project; total: $28,795)
Funding provided to date: $5,000
Summary: ERMA will conduct a creel census for the 2021 winter angling season within the Rattling Brook watershed. The purpose of this project is to determine if misidentification of fish by recreational anglers is negatively impacting kelt returns and thus possibly effecting the restoration of Atlantic salmon populations in this watershed. Biological data will be collected through the physical sampling of angled fish. With DFO analysis, identification as either kelt or Quananiche will prove if overwintering kelt are being accidentally angled and therefore reducing kelt populations returning to sea.

Project Number: NL-2020-09
Recipient: Humber Arm Environmental Association Inc.
Title: Restoring connectivity on tributaries throughout Western NL; addressing hanging culverts
Approved amount: $28,091
Funding provided to date: $21,068.25 (recovered grant funds were returned to the funding pool for 2021 grants)
Summary: The project used data acquired through the 2019/20 culvert surveys to identify hanging culverts that disrupt the connectivity of the river system. Using a weighted matrix that considers the culvert drop, area of upstream habitat to be made assessable, etc. culverts were prioritized for the installation of 20 chutes to facilitate the passage for Atlantic salmon and other species.

Project Number: NL-2021-01
Recipient: Bay St. George South Area Development Association
Title: Develop habitat conservation plans and restoration for rivers in Bay St. George 2021
Approved amount: $49,372
Funding provided to date: $0 (recovered grant funds will be returned to the funding pool for future grants)
Summary: This project was cancelled as it was unable to complete its objectives. ASCF is seeking grant repayment.

Project Number: NL-2021-02
Recipient: Bay St. George South Area Development Association
Title: Evaluate the success of the 2004 watershed conservation strategies for Atlantic salmon in Bay St. George rivers, and develop a new conservation strategy 2021
Approved amount: $49,986
Funding provided to date: $ 29,415.57 (recovered grant funds were returned to the funding pool for 2022 grants)
Summary: This was the final year for collecting salmon stock status information which will be used to evaluate the success of the Atlantic Salmon Management Plan for Bay St. George Rivers implemented in 2004. The results will be used to develop a new conservation management plan. In 2021, the status was determined by monitoring salmon returning to Little Barachois Brook with a counting fence and estimating spawners on Middle Barachois Brook and Robinsons River and/or Crabbe's River from snorkel surveys.

Project Number: NL-2021-03
Recipient: Friends of Salmonier Nature Park
Title: Salmon awareness days 2021
Approved amount: $7,500
Funding provided to date: $7,500
Summary: Friends of Salmonier Nature Park organised three full day "Salmon and its habitat" awareness days planned throughout the province. The games and activities were fun with learning components on Atlantic salmon built into all of them. In addition, some

GRANTS & STATUS

2016–2021 Project Grants

smaller scale sessions on salmon were incorporated in Friends of Salmonier Nature Park events such as Becoming an Outdoors Woman and Family Fun days at Salmonier Nature Park.

Project Number: NL-2021-07
Recipient: NunatuKavut Community Council
Title: Watershed management/conservation plan - Muddy Bay Brook, Labrador
Approved amount: $32,000
Funding provided to date: $32,000
Summary: NCC assisted in the development of a watershed management/conservation plan for Muddy Bay Brook that will be used to direct conservation efforts within that watershed. Incorporation of Aboriginal Traditional Knowledge (ATK) and education to public stakeholders on how the conservation and management of resources benefits users was also critical.

Nova Scotia

Project Number: NS-2020-02
Recipient: Dalhousie University (Sterling)
Title: Acidification mitigation plan for high priority salmon watersheds: effectiveness of liming to reduce toxic aluminum levels
Approved amount: $10,000
Funding provided to date: $9,000

Société saumon de la rivière Romaine - QC

Summary: Ionic aluminium (Ali) is toxic to Salmo salar and is known to be a key cause of population declines. The results of the 2014-17 ASCF Dalhousie Ali survey show that all rivers tested have toxic levels of Ali. This project will be using the past survey information to determine how best to address the problem using liming by sampling Ali levels in control and treatment catchments in NS. This information will be used to determine which liming method is best for reducing Ali levels.

Prince Edward Island

Project Number: PE-2021-05
Recipient: Souris and Area Branch of the PEI Wildlife Federation
Title: Atlantic salmon population baseline watershed survey in Hay River, phase 3
Approved amount: $24,000
Funding provided to date: $24,000
Summary: SAB conducted extensive monitoring in Hay River to compile benchmark data to validate and challenge previous assumptions of population numbers. Sex ratio of total returning adult salmon in comparison to redd numbers helped us understand watershed health and what effects they may have on salmon production and survival. Analyzing monitoring data helped to determine correlation between environmental conditions and limiting factors which will aid in retaining and improving salmon stocks in PEI through future restoration and monitoring initiatives.

Québec

Project Number: QC-2017-07
Recipient: Fondation pour le saumon du grand Gaspé
Title: Characterization of three Gaspé Rivers: York, Dartmouth and St-Jean.
Approved amount: $8,000 for 2019 (3 of 3 year project, total: $24,000)
Funding provided to date: $22,000
Summary: The goal of the project is to characterize salmon habitats on Dartmouth, York and St-Jean Rivers with high resolution aerial imaging to map habitat, identify potential spawning grounds, pools and thermal refuges. Project results will be used by managers to identify and protect the most productive areas as well as identify areas that can be developed to increase productivity.

Project Number: QC-2019-02
Recipient: Association de protection de la rivière Moisie
Title: Impact of rail transport on Atlantic salmon embryos survival in Nipissis River
Approved amount: $21,900 for 2020 (2 of 2 year project; total: $43,940)

GRANTS & STATUS

2016–2021 Project Grants

Funding provided to date: $38,465
Summary: The project will determine if trains passing repeatedly along Nipissis River increases the mortality rate of salmon eggs laid on the riverbed. The project will 1) quantify vibrations of the Nipissis riverbed caused by passing trains, 2) quantify by a lab experiment the impact of measured vibration ranges on Nipissis riverbed on the survival of Atlantic salmon embryos, and 3) develop, as the case may be, management recommendations to limit the impact.

Project Number: QC-2019-04
Recipient: Contact Nature Rivière-à-Mars
Title: Knowledge acquisition on sedimentary dynamics of Rivière-à-Mars for Atlantic salmon habitat restoration
Approved amount: $8,750 for 2021 (3 of 3 year project; total: $31,500)
Funding provided to date: $29,312.50
Summary: In partnership with the Université du Québec in Chicoutimi (UQAC), Contact Nature will start by developing sedimentary balances of Rivière-à-Mars. Those balances will help characterize transport intensity before the rockfill dismantling in the short and long term to quantify processes on a large time scale and to ensure monitoring after the dismantling. The long-term goal is to preserve and rebuild wild salmon habitat on the first 10 kilometers of Rivière-à-Mars.

Project Number: QC-2019-05
Recipient: Corporation de Gestion de la Rivière Saint-Jean-du-Saguenay Inc.
Title: Restoring connectivity between Saint Jean River and an abandoned meander
Approved amount: $30,000
Funding provided to date: $22,500
Summary: This project will improve hydrological conditions for salmon in a meander approximately 1,400 meters long which was abandoned after the completion of a major infill and bank protection project. On the left bank, which was infilled and raised, all water circulation was stopped between the watercourse and the meander. The CGRSJS will install a pipe to let the river water in, which will restore its original ecological functions.

Project Number: QC-2020-07
Recipient: Fédération québécoise pour le saumon atlantique
Title: Challenges, concerns and solutions concerning the adaptation of Québec salmon fishing industry to climate change
Approved amount: $12,800
Funding provided to date: $12,800
Summary: The FQSA, river managers, anglers, MFFP and MELCC are concerned about the adaptation to climate change. The FQSA assessed the challenges, concerns and anticipated impacts and solutions proposed by managers. It is important to better understand the angler's perception of these challenges and educate them on this subject. This process enhanced the discussion already started by MFFP which includes consideration of changes to water temperatures and regimes connected to climate change.

Project Number: QC-2020-08
Recipient: Fédération québécoise pour le saumon atlantique
Title: Development of educational component "La vie de Salmo avec les Premières Nations" for Histoire du saumon educational program
Approved amount: $32,000
Funding provided to date: $24,000
Summary: FQSA is working to increase awareness among young people of the history and culture of First Nations of Québec. Working in partnership with local organizations, FQSA will collect salmon stories built around First Nations. FQSA will create partnerships with communities close to salmon to help them create their own committee where they will write their story about salmon. FQSA will coordinate the project, create collective efforts, help communities based on their needs, and prepare educational material, as an online activity in the form of a story map (ArcGIS Online).

Project Number: QC-2020-11
Recipient: Organisme de bassin versant du Saguenay
Title: Characterization of Atlantic salmon habitat on Saint-Jean–Saguenay River and three of its tributaries
Approved amount: $5,000 for 2021 (2 of 2 year project; total: $15,000)
Funding provided to date: $13,750
Summary: The Atlantic salmon population of the Saint-Jean–Saguenay River has not been attaining its optimum conservation threshold and better knowledge of disturbances affecting the watershed is necessary. Since the 1996 flood, this river has been subject to several anthropogenic disturbances. Characterization of the river's morphology, riparian habitat and fish habitat will help increase the understanding of the scope of the disturbances and to identify sensitive areas where restoration is needed to help improve salmon habitat.

SUMMARY OF PROJECT AUDITS

Summary of Project Audits and Evaluations

In 2022 random audits of 22 Foundation funded projects were conducted. The audit process follows a structured method of assessing whether the project is being carried out in accordance with the funding agreement entered into between the Foundation and the recipient, including project photos and an examination of minutes of meetings and accounting records. The project audits supplement the assessment of performance completed by staff through review of the draft funding agreement, together with interim and final project reports received from recipients.

Note: Project audits are not conducted on every project each year. This is due to limited staff resources being available or, that the same recipient group had recently undergone a project audit.

In 2022 the following recipient groups were audited for performance:

New Brunswick Projects

NB-2022-02	Belleisle Watershed Coalition
NB-2022-07a	Meduxnekeag River Association
NB-2022-12	Nepisiguit Salmon Association
NB-2022-13	North Shore MicMac District Council
NB-2022-18a	University of New Brunswick

Newfoundland & Labrador Projects

NL-2022-01	Environment Resources Management Association
NL-2022-02	Environment Resources Management Association
NL-2022-08a	St. Anthony Basin Resources Inc.
NL-2022-09	Salmonid Preservation Association for the Waters of Newfoundland
NL-2022-10	Salmonid Preservation Association for the Waters of Newfoundland

Nova Scotia Projects

NS-2022-06	The Confederacy of Mainland Mi'kmaq – Mi'kmaw Conservation Group
NS-2022-08	Nova Scotia Salmon Association
NS-2022-09	Sackville Rivers Association

Prince Edward Island Projects

PEI-2022-01	Central Queens Branch of the PEI Wildlife Federation
PEI-2022-02	Cornwall and Area Watershed Group Inc.
PEI-2022-05	Trout Unlimited Prince County Chapter

Québec Projects

QC-2022-02	Management Corporation of Matapedia and Patapedia Rivers
QC-2022-06	Watershed organization of Upper North Shore
QC-2022-07	Restoration and Management Corporation of Nouvelle River

Scientific Projects

SAC-2022-01a	Dalhousie University
SAC-2022-02a	Memorial University
SAC 2021-03b	University of New Brunswick - Fredericton

Bluenose Coastal Action - NS

MacMillan Lawrence & Lawrence
Chartered Professional Accountants

Report of the Independent Auditor on the Summary Financial Statements

To the Directors of The Atlantic Salmon Conservation Foundation

Opinion
The summary financial statements, which comprise the summary statement of financial position as at December 31, 2022 and the summary statements of operations and changes in net assets for the year then ended, are derived from the audited financial statements of The Atlantic Salmon Conservation Foundation for the year ended December 31, 2022.

In our opinion, the accompanying summary financial statements are a fair summary of the audited financial statements, in accordance with Canadian accounting standards for not-for-profit organizations.

Summary Financial Statements
The summary financial statements do not contain all the disclosures required by Canadian accounting standards for not-for-profit organizations. Reading the summary financial statements and the auditor's report thereon, therefore, is not a substitute for reading the audited financial statements and the auditor's report thereon.

The Audited Financial Statements and Our Report Thereon
We expressed an unmodified audit opinion on the audited financial statements in our report dated March 2, 2023.

Management's Responsibility for the Summary Financial Statements
Management is responsible for the preparation of the summary financial statements in accordance with Canadian accounting standards for not-for-profit organizations.

Auditor's Responsibility
Our responsibility is to express an opinion on whether the summary financial statements are a fair summary of the audited financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, *Engagements to Report on Summary Financial Statements*.

Fredericton, NB
March 2, 2023

MacMillan Lawrence & Lawrence
Chartered Accountants

REPORTS & STATEMENTS

Statement of Financial Position

	December 31, 2022	December 31, 2021
Assets		
Current		
Cash and cash equivalents	$ 22,651	$ -
Receivables	58,292	19,109
Prepaids	5,935	-
	86,878	19,109
Investments	42,914,743	46,977,846
	$ 43,001,621	$ 46,996,955
Liabilities		
Current		
Bank indebtedness	$ -	$ 11,377
Payables and accruals	826,280	574,094
	826,280	585,471
Net Assets		
Reserve Fund – Internally Restricted	332,798	289,995
Endowment Fund – Externally Restricted	41,842,543	46,121,489
	42,175,341	46,411,484
	$ 43,001,621	$ 46,996,955

Approved on behalf of the Board:

Director

Director

REPORTS & STATEMENTS

Statement of Operations and Change in Net Assets

Year ended December 31,	2022	2021
Revenue	$ (2,013,764)	$ 5,115,067
Expenses		
Administration	593,024	408,722
Grants	1,367,902	1,260,790
Investment management fees	261,453	204,333
	2,222,379	1,873,845
Excess of revenue over expenses	$ (4,236,143)	$ 3,241,222
Net assets, beginning of year	$ 46,411,484	$ 43,170,262
Excess of revenue over expenses	(4,236,143)	3,241,222
Net assets, end of year	$ 42,175,341	$ 46,411,484

For the 2022 Fiscal Year total remuneration paid to one Foundation employee whose remuneration exceeds $100,000 per year was $144,688.83 considering of the following: gross wages and benefits = $123,324.11 and $21, 364.72 in expense reimbursements.

ASCF VOLUNTEERS & PERSONNEL

Officers, Directors & Board Committees

Officers

Hon. Rémi Bujold, P.C., C.M.,
Chairman & President,
Québec, QC

Robert Bishop, C.A.,
Vice-Chairman & Vice-President,
St. John's, NL

Jim Jones
Secretary,
Moncton, NB

Mark Delaney, C.A.,
Treasurer,
Moncton, NB

Directors

Réné Aucoin
Chéticamp, NS

Kastine Coleman
Corner Brook, NL

Michael Durant
Charlottetown, PEI

Marie-Hélène Lacroix
New Richmond, QC

James Lawley
Halifax, NS

David Peter Paul
Pabineau First
Nation, NB

Board Committees

Investment:
R. Bishop (Chair)
James Burton
Marie-Hélène Lacroix
John LeBoutillier

Audit & Finance:
Robert Bishop
Rémi Bujold
Mark Delaney (Chair)
Mike Durant

Policy & Program:
Réné Aucoin
Kastine Coleman
Jacqueline Girouard
Jim Jones (Chair)
Sylvie Tremblay

Development Committee:
Rémi Bujold
James Burton
James Lawley
David Peter Paul

Staff

Charline McCoy
Executive Director

Stephen Chase
VP of Government Affairs

Allyson Heustis
Conservation Program Coordinator

Gert Lawlor
Conservation Program Coordinator (Acting)

Henri Mallet
Conservation Program Coordinator

ASCF VOLUNTEERS

Advisory Committees

New Brunswick Advisory Committee

Kathryn Collet (Chair), Richard Debow, David Dunn, Dr. Michelle Gray, Todd Kennedy, Jim Marriner, Sara Richard, Dr. Charles Sacobie.

Nova Scotia Advisory Committee

Michael Pollard (Chair), Keith Christmas, Jennifer MacDonald, David MacNeil, Darryl Murrant, Shane F. O'Neil, Patrick Wall, Jason LeBlanc.

Comité consultatif provincial du Québec

Richard Firth (Chair), Dr. Thomas Buffin-Bélanger, Véronique Gilain, Jean-Pierre le Bel, Frédéric Lévesque, Jean Malec, Sébastien Ross, Sylvie Tremblay.

Newfoundland & Labrador Advisory Committee

Fred Parsons (Chair), Brian Dempson, Gregory Jeddore, Rick Maddigan, Jim McCarthy, Carl McLean, Graham Roome, Travis Van Leeuwen.

Prince Edward Island Advisory Committee

Mary Finch (Chair), Rob Burnett, Todd Dupuis, Brad Ledgerwood, Shawn MacDougall, Ottis McInnis, Rosanne MacFarlane, Ruby Sharp.

Scientific Advisory Committee

David Reddin (Chair), Dr. Ian Bradbury, François Caron, Yvon Coté, Dr. Rick Cunjak, Peter Cronin, Brian Dempson, Dr. Carole-Anne Gillis, Dr. Shelley Denny.

Ducks Unlimited Canada - NL

2022 VOLUNTEER PROFILES

Meet a few of ASCF's stellar volunteers, who are crucial to realizing ASCF's work for Atlantic Salmon conservation.

Stephen Chase

Meet Stephen Chase, our VP of Government Affairs (staff).

Born in Fredericton, New Brunswick, Chase has fond memories of trout fishing with his father in small streams in the area. However, his passion for fishing and habitat issues came later while pursuing his education. Chase earned three degrees from the University of New Brunswick, starting with a Bachelor of Science in biology in 1972, followed by a Bachelor of Business and a law degree. During this time, he worked 3 summers as a biologist with New Brunswick's Department of Natural Resources and 5 summers with the federal Department of Fisheries and Oceans.

"It was during my work as a biologist with the province that I acquired an interest and some understanding of conservation issues facing wild Atlantic salmon," said Chase. "I was fortunate that I got to work on rivers and streams throughout the province of New Brunswick, on back roads where most people never go. A boy biologist was how I referred to myself at the time."

The work was very rewarding and gave him another perspective on conservation issues, and working under a biologist who was an avid fly fisherman, Chase soon realized that he had a passion for it himself and became a fly fisherman for salmon. Around that same time he also discovered another passion – government relations.

"During the time that I was with the provincial government, starting in 1980, I moved from doing legal affairs to government affairs," said Chase. "During the next 20 years I became a specialist in government relations, working as New Brunswick's representative to provincial territorial forums of deputy ministers and ministers of health and social services. That's where I acquired the skill set – I call it the toolbox. I learned it was important to connect the dots between the bureaucrats in a government department and the elected officials."

Government relations was the key focus in Chase's career going forward, as he served in positions with New Brunswick's Department of Health, the Department of Fisheries and Oceans, Canadian Blood Services, and the Atlantic Salmon Federation. It also informed his later work with the City of Fredericton, where he served as a City Councilor and Deputy Mayor for many years.

In the 1990s Chase became involved with the New Brunswick Salmon Council, an organization of provincial conservation groups. He eventually became director and president of the organization, which brought him to the attention of the Atlantic Salmon Federation. With the ASF, Chase's most important task was to advocate for the creation of an Atlantic salmon endowment fund as a counterpart to DFO's Pacific salmon endowment fund. When that fund was approved, Chase was then working in DFO and became intimately involved in the public consultations and other work that went into the establishment of the fund. Shortly after the fund was incorporated as the Atlantic Salmon Conservation Foundation, Chase was invited to become the executive director.

"We built the ASCF from scratch," said Chase. "We started out at my kitchen table in Fredericton. 2007 was an organizational year where we had to put in place all the processes – how to run an office, how to call for applications, how to develop funding agreements, how to manage feedback for recipients. Over the years, our board of directors has been able to manage the investment portfolio very well up to its current level."

It was then with a mix of pride and sadness when Chase, after 15 years as executive director, stepped back from the day-to-day operations to focus specifically on government relations. He was succeeded as executive director by Charline McCoy in 2022.

"In every walk of life there's a beginning and there's an ending," said Chase. "I believe strongly in succession; I think it's extremely important for the success of the organization. Charline joined us in 2021 and she's a very talented individual."

As VP Government Affairs, Chase has two key strategic goals – to attract more funding to better meet the demand for conservation project funding and to assist provincial organizations to develop closer links with other conservation groups. To that end, the ASCF launched Provincial Partnership Symposia in Newfoundland and Labrador, New Brunswick, and Prince Edward Island in late 2022 and is planning symposia in Nova Scotia and Québec in early 2023.

Meet Yvon Côté, a member of the Scientific Advisory Committee.

Yvon Côté

As a child growing up in the small village of Pierreville, Québec, Côté gained an appreciation for wildlife – as his father would bring home partridges, ducks, geese and snowshoe hares, he remembers being impressed by the variety of colours and sizes that the birds would come in. Later, his family then living in Montréal, Côté's father was hoping his son would become a doctor. This lead him to go for a bachelor degree in arts with a major in ancient studies and a minor in science in 1964,

2022 VOLUNTEER PROFILES

Meet a few of ASCF's stellar volunteers, who are crucial to realizing ASCF's work for Atlantic Salmon conservation.

which in those years was the usual prerequisite to enter the Faculty of medicine in Québec. However, having been exposed in his youth to nature and wildlife he could not resist following his love of fish and wildlife which lead him to earn a second bachelor degree, in sciences with a major in biology and a minor in zoology at the University of Montréal in 1967.

"During my years studying biology I was impressed by a teacher who taught fish and wildlife, and who later became a professor at McGill", said Côté. "I decided to pursue a master's degree with that professor and I entered a program they had for fish and wildlife management at McGill's Macdonald campus outside Montréal. In 1970, I earned a master's degree in science."

Côté worked as a biology teacher during his studies, and after his graduation at McGill he worked with the Province of Québec serving as a professional biologist from 1971 until 1996. For the first several years of this career with the province, he specialized in Atlantic salmon biology. From 1987 until 1991, Côté served as the director of Québec Fisheries Service. And from 1992 until 1996 he acted as the secretary general of the Salmon Enhancement Program of Québec. In 1996, Côté left civil service and joined the private sector as a co-owner of a fish and game outfitting business until his retirement in 2012.

In parallel with his business career Côté got involved with the Québec Atlantic Salmon Federation of which he was president from 2000 to 2013. He met Stephen Chase during the earliest days of the Atlantic Salmon Conservation Foundation and was regularly consulted to help develop the main trusts of the Foundation. Eventually he became a member of the Québec Advisory Committee and later joined the Scientific Advisory Committee. Côté is very interested in the idea of a management approach to research in the field and supports projects that could help important watersheds.

Appropriately, Côté is a firm supporter of a 'watershed approach' – a holistic coordinating framework for environmental management that brings public and private sector efforts together, along with political, socio-economic and natural science approaches.

"The watershed approach is relevant in the context of global climate change," said Côté. "If water and air temperature are going to keep on increasing, these effects will have widespread impacts on salmon. Therefore, if I must choose between funding two projects, my inclination will be to choose the project that has a watershed approach."

Côté has thoroughly enjoyed his time on the Scientific Advisory Committee, as it has allowed him to make valuable connections with his peers and to keep up to date on the issues that are negatively impacting salmon habitats along with proposed solutions.

Meet Brian Dempson, a member of the Newfoundland Advisory Committee and the Science Advisory Committee.

Brian Dempson

Dempson was born in Ontario, spending his earliest years in Ottawa before attending high school in Toronto. After studying at the University of Guelph, he jokes that he 'saw the light' and moved to Newfoundland to take on a position with the Department of Fisheries and Oceans. He worked on a graduate degree at Memorial University at the same time, that enhanced his interest in fish habitat and ecology issues.

Working with the Department of Fisheries and Oceans in St. John's, Dempson spent 39 years investigating the ecology and population dynamics of Atlantic salmon and Arctic charr. He retired as a research scientist but maintains a scientist emeritus position where he is still actively involved with researchers and students.

"The science component of the work was enjoyment," said Dempson of his career with DFO, with much of this due to the friends and colleagues he interacted with.

Dempson joined both the ASCF Science Advisory Committee and the Newfoundland Advisory Committee in 2015. He saw this as a logical extension of his work with DFO and welcomed the opportunity to use his knowledge and experience to interact with others in reviewing and evaluating salmon conservation and habitat restoration efforts. He says that the work he given him an even greater appreciation of the work that community organizations do in conserving and restoring those habitats.

"Atlantic salmon continue to face considerable challenges despite the closure of, or reduction in, most ocean fisheries for salmon in the Northwest Atlantic," said Dempson. "The species still needs all the assistance it can get and the ASCF is doing an excellent job in helping to promote and fund important conservation programs and being part of this is a rewarding experience."

2022 VOLUNTEER PROFILES

Meet a few of ASCF's stellar volunteers, who are crucial to realizing ASCF's work for Atlantic Salmon conservation.

Meet Dave Dunn, a member of the New Brunswick Advisory Committee.

Dave Dunn

A Moncton native, Dunn has fond memories of catching salmon and trout on the Miramichi and Petitcodiac River systems in his youth. He also has a clear memory of when he first started to think about the importance of protecting salmon habitats.

"I recall when the Petitcodiac causeway was built and the discussion around that," said Dunn. "And then I was able to see firsthand the destruction that caused in the watershed after its construction – the deterioration of habitat and the loss of fish species."

Dunn studied economics and sociology at St. Thomas University and his interest in fisheries management was bolstered through time spent working on fishing boats in Yarmouth, Nova Scotia. That experience connected him with representatives of the Department of Fisheries and Oceans, who asked him to come work with them in Ottawa.

"I started as a junior economist in Fisheries Management and I continued on that path," said Dunn. "I had the opportunity to work on different interesting files in DFO, under a great group of mentors. When a decision was taken to open a regional office to focus on the Gulf of St Lawrence, I was among the first to apply to transfer to Moncton."

In the ensuing years, Dunn was a key player in DFO's Gulf Region efforts, at different times managing the commercial and recreational fisheries, aquaculture, and habitat and oceans programs. Dunn's efforts helped DFO establish fisheries licensing and quota allocation programs on which the current fishing industry is now structured.

"In the early 1990s, DFO introduced a program to enhance recreational fisheries, which created a new recreational fisheries branch in the Gulf Region, which I was asked to lead. Its intent was to restore recreational fisheries with a major focus on Atlantic salmon. It provided support for research, fish stock and habitat restoration, fisheries management, marketing, and infrastructure."

After the conclusion of this program, Dunn moved on to manage DFO's regional Oceans and fish habitat programs, where among other things, he worked on the removal of the Causeway. Since retiring from DFO, Dunn founded a fisheries and environmental management company providing services to Indigenous groups, government, non-government organizations and industry. He has also volunteered his time to serve as member and chair on the New Brunswick Wildlife Trust Fund's council, as chair of the New Brunswick Wildlife Federation's Fisheries Committee and has been a Canadian Commissioner to the North Atlantic Salmon Commission (NASCO).

During his time in DFO Dunn had been a strong supporter of the creation of the Atlantic Salmon Conservation Foundation as a natural vehicle to bridge the funding gap after government decided to discontinue its recreational fisheries development program. He was happy to accept when asked to join the New Brunswick Advisory Committee in 2018.

"This is a crucial piece in the overall salmon file," says Dunn. "Without the community groups' active efforts in the watersheds and the research that ASCF is supporting, I'd be very much afraid that the salmon stocks would be in a much more difficult state than they currently are. Now more than ever, Atlantic salmon desperately need the community groups and the research organizations working in collaboration with government. In order to make that happen, there must be funding. To this end, the ASCF plays an essential role."

Meet Marie-Hélène Lacroix, a member of our Board.

Marie-Hélène Lacroix

Born in Campbellton, New Brunswick, but having spent her childhood in Carleton, Québec in the Gaspé peninsula, Lacroix was never much into salmon fishing growing up, but she was always aware of its importance.

"Now living a few kilometers eastward in New Richmond, a community that's located between two important salmon rivers, the Grand Cascapédia and Petite Rivière Cascapédia" said Lacroix. "My older brother fishes a lot and has been doing that for about 30 years now. It's an interest in my family. And it's very important for the local and Gesgapegiag communities there. It's worth preserving."

Lacroix made her career in law and finance in Montréal, having earned a Bachelor of Law degree at Université de Montréal and then a Master of Laws degree in 1996 and a Master of Business Administration in 2001, both from McGill University. She worked with several

2022 VOLUNTEER PROFILES

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Montréal-based law firms before embarking on her career in corporate banking, which has included positions with Scotiabank, National Bank Financial, Business Development Bank of Canada and Desjardins Capital Markets. She then moved back to the Gaspé with her husband (who also comes from New Richmond) to take care of a family enterprise in the printing business. Since 2015, she has also served as a business consultant for LBA Stratégies Conseils Inc. and RCGT. In 2021, she has joined Desjardins Securities as a wealth management and investment committee associate.

Lacroix has also donated her time serving as a member of the board of directors for the Fondation santé Baie des Chaleurs, the Association des fondations d'établissements de santé du Québec and the Fondation Communautaire Gaspésie-les-Iles. It was through those efforts that she met the chairman of the ASCF's board of directors the Honourable Rémi Bujold who invited her to join the foundation.

"He knew me from some of the other boards and thought I was a good fit in terms of being on the investment committee and he was looking for a representative from Québec, from a region where people are doing salmon fishing and somebody who knew investments," said Lacroix. "I fit all three."

Lacroix is always happy to see that a wide range of projects are supported by ASCF funding. These projects, undertaken by local community groups, benefit all people who live on or near these watersheds.

"I like the fact that we are good sponsors for meaningful research projects and we make sure they get funded over time and its good for the universities as well," said Lacroix. "I also like educational projects for children, that's good as well. You want people, when they grow up, to take care of the resource as well. I wouldn't say that I favour certain projects versus others – I believe they are very carefully selected by our various committees and permanent ASCF's resources and therefore they all deserve our attention and good funding."

Meet Frédéric Lévesque, a member of the Québec Advisory Committee.

Born in Montréal, Lévesque took up fishing at a young age in North Shore of St.-Lawrence River and became interested in issues of fish health and ecology early on.

"I liked very much to fish at that time, and I've made a career almost entirely on fisheries and fish ecology," said Lévesque.

At university, Lévesque worked for a few years as a researcher for a master's student and became very interested in the topic of sonar hydroacoustic studies on fish detection and biomass. He spent five years working on fisheries and toxic substances with the Québec government. When a permanent position did not materialize, he went to the private sector working with Genivar Counsulting Group (now WSP Global inc.).

"In the beginning of my career, I was much more involved with field work in the North around James Bay, Ungava Bay and around Caniapiscau River," said Lévesque. "I eventually became a project director and was managing teams in the field and in charge of projects and budgets. I was really lucky to work on some of the biggest projects here in Québec, like the hydroelectric dam and on a highway for the Ministry of Transportation. And I worked also with the province on the restoration of rivers of Saguenay area after a big flood."

Lévesque's career saw half his focus on brook trout, walleye, pike, lake trout and the other half focused mostly on salmon.

"I'm a salmon fisherman and also a salmon biologist and specialist," said Lévesque with a chuckle.

The Atlantic Salmon Conservation Foundation first appeared on Lévesque's radar when he was acting as general manager on a salmon restoration project in the Romaine River. He was able to obtain funding for the project through the ASCF and met some of the members in a meeting in Québec City. There he was asked if he would join the Québec Advisory Committee. For someone with a lifelong interest in salmon and fishing, it was a perfect fit.

"Salmon is like the woodland caribou – a health habitat indicator," said Lévesque. "Salmon is a good indicator of water and habitat quality. The conservation task of the foundation is getting more money towards those aspects and I'm very interested in the work that has been done for enhance salmon populations and their habitat restoration."

Frédéric Lévesque

Lévesque says that he is very interested in projects that serve that ideal, particularly efforts at fish rearing using genetic selection of native strains to help enhance the overall health of the fish population. Lévesque is also very passionate about projects that provide an education to people about the health of their waterbodies and the importance of a functioning ecosystem.

"And the other part that interests me very much is research looking into problems with culverts and thermal habitat," said Lévesque. "And new tools like thermal cameras which can make a big difference in knowing where the fish can stay in summer and LiDAR technology which help finding culverts to be restored. These are very useful tools to improve habitat."

2022 VOLUNTEER PROFILES

Meet a few of ASCF's stellar volunteers, who are crucial to realizing ASCF's work for Atlantic Salmon conservation.

Shawn MacDougall

Meet Shawn MacDougall, a member of the Prince Edward Island Advisory Committee.

Growing up just outside Charlottetown in Stratford, Prince Edward Island, MacDougall fished trout for as long as he can remember.

"I grew up just down the road from a little fishing hole that I used to go to every morning to catch some fish before I caught the bus to school," said MacDougall. "So, fishing has always been something that's been big for me."

It was that interest in fishing that first drew MacDougall's attention to issues of ecology and fish habitat health. He vividly recalls when silt runoff from significant development on surrounding properties caused the water in that fishing hole to turn completely red.

"That was when I really noticed the impact that development was having," said MacDougall. "It became important to me that we try to mitigate these impacts. There's no stopping development, but there needs to be a mitigation plan for these types of events."

In 2010, MacDougall earned a master's degree in environmental chemistry, working with his supervisor to develop a new technique for detecting pesticides in natural waters using types of fluorescence. Shortly thereafter, he took a job with Holland College where he remains to this day, now serving as director of applied research.

"My role is to help facilitate research projects between our students, our faculty, industry and community groups," said MacDougall. "I'm the go-between between our communities and our students. On any given day I could be interacting with sectors from welding to food product development to environmental projects. We have an Environmental Applied Science program and I really enjoy the projects that come out of that program because they're often tied to watersheds and community groups that are interested in conservation and testing."

MacDougall first connected with the ASCF through a co-worker at the college who was volunteering with the organization – when there was an opening for a new member of the PEI Advisory Committee, MacDougall leapt at the opportunity. Growing up using some of these watersheds himself, he finds it extremely rewarding to now help in facilitating efforts to protect waterbodies or to restore them to where they were before the impacts of development or natural erosion and other factors.

"I'm just fascinated by what these groups are trying to accomplish and the different types of techniques that they employ to help with the restoration of water bodies," said MacDougall. "That's really where my interest lies – learning more about the techniques, the terms and the priorities of all the different watersheds. Even though we're a small island, we have watershed groups covering the majority of the island and each one has a unique aspect that they employ to help with the restoration and learning about all those things is interesting to me, and obviously, the good work of restoring the habitats for such a beautiful fish."

Meet David MacNeil, a member of the Nova Scotia Advisory Committee.

David MacNeil

Growing up in Sydney, Nova Scotia, MacNeil spent much of his spare time fishing for trout. And while he says there wasn't any single incident that led him to an interest in fish habitats and ecology, it was engrained in him over time.

"I can't think of a key moment off hand, but you notice over the years changes in environment, habitat and climate," said MacNeil. "I've been fishing for over 50 years, so you notice very dramatic changes. There have been many smaller markers along the way."

In addition to fishing, MacNeil had a passion for learning which over time developed into an interest in teaching. He attended St. Francis Xavier University and earned a Bachelor of Arts, a Bachelor of Education and a Master's Degree in educational administration. MacNeil spent 35 years as a school teacher and school administrator in Nova Scotia, with a specialization in social studies focusing on global history and international baccalaureate history. He retired in 2011.

"The biggest thing I wanted my students to take away from my classes was a critical eye," said MacNeil. "To read things while always questioning the source and the intent of the author and having an open mind when you read things to compare different perspectives."

In 2006, MacNeil and other anglers in the area became concerned about the declines that had been seen in local salmon and trout

2022 VOLUNTEER PROFILES

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populations. They formed the Antigonish Town and County Angler's Association, which eventually evolved into the Antigonish Rivers Association. It was through his work with that group that MacNeil first encountered the ASCF, through the association's search for funding partners and like-minded organizations. In 2019, he joined the Nova Scotia Advisory Committee.

"I think the beauty of the organization is that it coordinates and looks after a lot of smaller organizations that by themselves would not have all the finances necessary to do their work," said MacNeil. "Also, they wouldn't have the clout that a larger, national organization gives you."

MacNeil says that he is particularly interested to see these smaller organizations develop long-term plans for work towards revitalization of watersheds. And he is heartened to see so many of them in Nova Scotia.

"It's always nice to see the same groups back year after year – they've survived all the challenges, financial cutbacks, COVID-19 and everything else," said MacNeil. "And hopefully within those groups you see new people stepping forward, which is rewarding. And volunteer restoration efforts are based on matching funds, once you have some seed money in place, it's great to know that there are other groups that are interested and can help you."

Like many advisory committee members who joined in recent years, MacNeil was only able to attend one meeting in person before the COVID-19 pandemic moved the meetings to a virtual space. But those online meetings have still been very rewarding for MacNeil who has enjoyed networking and connecting with other community watershed associations and learning about the work they are undertaking.

Nepisiguit Salmon Association - NB

ASCF STRUCTURAL MODEL

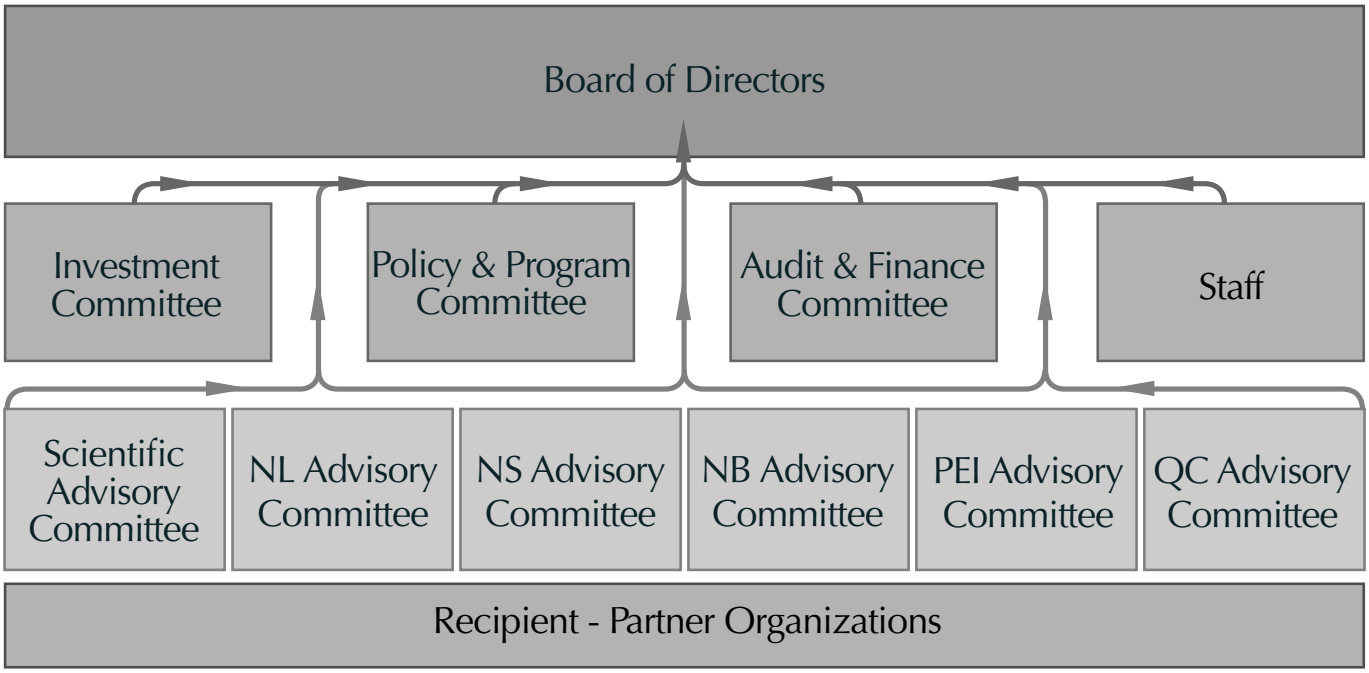
ASCF Structural Fact Sheet

Background

The structure of the ASCF is guided by the requirements of the Treasury Board approved Funding Agreement as well as by basic good governance of a non-profit organization. The Funding Agreement requires the ASCF to be duly incorporated as a non-profit organization to receive and act upon its custodianship of the Atlantic Salmon Endowment trust fund. In addition, the Funding Agreement specifies the creation and composition of an "Investment Committee" and the "Technical Advisory Committees".

Board and Committees

The ASCF Board is comprised of 10 Directors elected from the 18 Members of the Foundation. The Board has balanced and inclusive representation of all 5 provinces and Indigenous groups. It meets 4 times annually.



Investment Committee

The ASCF trust fund is actively managed by an expert investment committee which is supported by an investment management firm that monitors the individual performance of the investment firms (currently 4) and advises on investment policy and strategy. The Investment Committee recommends the annual project grant pool based on trust fund performance. *"The Investment Committee shall oversee all matters related to the investment and the management of the Fund. Members of the Investment Committee shall be financially literate and have broad knowledge of or experience in investment matters."*

Technical Advisory Committees

Technical advisory committees are mandated by the Funding Agreement. There are 6 advisory committees, one for each province, including a Scientific Advisory Committee, supporting the Board in its funds granting and management decisions. The

ASCF STRUCTURAL MODEL

ASCF Structural Fact Sheet

composition of these committee is also specified, with each committee comprised of respected, outstanding experts. *"The Foundation will establish a Technical Advisory Committee structure, made up of expert volunteer representatives of federal and provincial governments, Aboriginal groups, universities and other stakeholders, appointed by the Board, to review and evaluate proposals for funding, make recommendations for funding to the Board, and monitor performance of the Ultimate Projects selected for funding".*

Recipient-Partners

The Foundation actively treats its recipient groups as true partners to delivering on the Foundation's mandate. While all funded projects are performance managed, staff work with recipients to help them be successful. There are numerous recipient-partners in each province covering the fair geographic representation specified in the Funding Agreement. As partners, these groups comprise an excellent network and basis of provincial planning and priority setting working in concert with the provincial advisory committee. As of 2022 there are approximately 200 recipient-partner organizations spread across 5 provinces.

CONSERVATION PARTNERS

The 2022 List of Our Conservation Partners

Agence Mamu Innu Kaikusseth
Agricultural Alliance of New Brunswick
Anqotum Resource Management
Antigonish Rivers Association
Association de protection de la rivière Moisie
Association de gestion halieutique autochtone Mi'kmaq et Malécite
Atlantic Canada Fish Farmers Association
Atlantic Coastal Action Program Cape Breton
Atlantic Coastal Action Program Humber Arm Environmental Association Inc.
Atlantic Coastal Action Program Saint John
Atlantic Salmon Conservation Foundation
Atlantic Salmon Federation
Atlantic Water Network
Bay St. George South Area Development Association & Local Service District
Bay St. George South Ride for Ages Inc.
Belleisle Community Centre
Belleisle Watershed Coalition
Canada Games
Canada Nature Fund for Species at Risk
Canada Summer Jobs
Canadian Parks And Wilderness Society of Newfoundland and Labrador
Canadian Rivers Institute
Cape Breton Island Wildlife Association
Cape Breton University
Central Queens Branch of the PEI Wildlife Federation
Centre interuniversitaire de recherche sur le saumon atlantique
Cheticamp River Salmon Association
Clean Foundation
Coastal Action
College of the North Atlantic
Community Forests International
Conseil de Gestion de l'eau Gaspésie Sud
Conseil de Gestion du Bassin Versant de la rivière Restigouche
Conseil de la Nation huronne-wendat
Conseil de l'Eau de la Gaspésie Sud
Cooke Aquaculture
Corner Brook Port Corporation
Cornwall and Area Watershed Group Inc.
Corporation de gestion de la rivière à saumon des Escoumins
Corporation de gestion des rivières Matapédia, Patapédia, Causapscal et réserve Dunière
Corporation de gestion de la rivière Saint-Jean Saguenay
Corporation de gestionnaire de territoires fauniques
Corporation du bassin de la Jacques-Cartier
Conservation Corps Newfoundland and Labrador
Contact Nature Rivière à Mars
Dalhousie University
Desjardins
Eastern Shore Wildlife Association
Echo Foundation
Eddy Out Depot
Employment and Social Development Canada - Emploi et développement social Canada
Énergie NB Power
Environment and Climate Change Canada - Environnement et Changement Climatique Canada
Environment and Natural Resources Canada – Environnement et ressources naturelles Canada
Environment Resources Management Association
Fédération québécoise du saumon atlantique
Fisheries and Oceans Canada - Pêches et Océans Canada
Fly Fishers International
Fondation de la Faune du Québec
Fondation Hydro-Québec pour l'environnement
Fondation pour le saumon du grand Gaspé
Fondation Saumon
Fonds d'action Saint-Laurent
Fort Folly First Nation
Freshwater Alexander Bays Ecosystem Corporation
Friends of the Kouchibouguacis
Gespe'gewaq Mi'gmaq Resource Council
Glencore
Government of Canada
Graham and Susan Smith Foundation

CONSERVATION PARTNERS

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Hatheway Group
Hillsborough River Association Inc.
Holland College
Hydro-Québec
Indian Bay Ecosystem Corporation
Institut national de recherche scientifique
Intervale Associates Incorporated
Inverness South Anglers Association
J Frank Gaudet Tree Nursery
Keep Fish Wet
Kennebecasis Watershed Restoration Committee
Liber Ero
Living Lakes Canada
Mabou River Inn
Maliseet Nation Conservation Council
McLean Foundation
Meduxnekeag River Association
Memorial University of Newfoundland and Labrador
Mi'kmaq Confederacy of Prince Edward Island
Ministère des Forêts, de la Faune et des Parcs du Québec
Miramichi River Environmental Assessment Committee
Miramichi Salmon Association
Mitacs
Morell River Management Cooperative
Mount Stewart Consolidated School
MRC de Portneuf
Nashwaak Watershed Association Inc.
Natural Sciences and Engineering Research Council - Conseil de recherches en sciences naturelles et en génie du Canada
Nepisiguit Salmon Association
New Brunswick Community College - Collège communautaire du Nouveau-Brunswick
New Brunswick Department of Agriculture, Aquaculture and Fisheries – Ministère d'Agriculture, aquaculture et pêches
New Brunswick Department of Energy and Resource Development - Ministère du Développement de l'énergie et des ressources
New Brunswick Department of Environment and Local Government - Ministère de l'environnment et des gouvernements locaux du Nouveau-Brunswick
New Brunswick Department of Natural Resources and Energy Development – Ministère de ressoures naturelles et Développement de l'énergie
New Brunswick Department of Post-Secondary Education, Training and Labour - Ministère de l'éducation postsecondaire, de la formation et du travail de Nouveau-Brunswick
New Brunswick Salmon Council
New Brunswick Wildlife Trust Fund - Fonds de fiducie de la faune du Nouveau-Brunswick
Newfoundland & Labrador Department of Education, Training, and Skills Development
Newfoundland & Labrador Department of Consumer and Financial Services Division
Newfoundland & Labrador Department of Fisheries, Forestry, and Agriculture
Newfoundland & Labrador Outfitters Association
Newfoundland Power
Nipissis Moisie Outfitter
North Shore MicMac District Council
Northeast Avalon Atlantic Coastal Action Program
Nova Scotia Community College
Nova Scotia Department of Fisheries and Aquaculture
Nova Scotia Salmon Association
Nova Scotia Salmon Association Adopt-A-Stream
Nunatukavut Community Council
Organisme de bassin versant du Saguenay
Organisme de bassins versants de la Haute-Côte Nord
Oromocto First Nation
Oromocto River Watershed Association
Pabineau First Nation
Parks Canada - Parcs Canada
Patrimoine Canada
Perennia Research Inc.
Petitcodiac Watershed Alliance Inc.
Port Hawkesbury Paper
Prince Edward Island Department of Communities, Land & Environment
Prince Edward Island Department of Environment, Energy and Climate Action
Prince Edward Island Department of Transportation, Infrastructure & Energy
Prince Edward Island Department of Forests, Fish and Wildlife
Prince Edward Island Department of Fisheries and Communities
Prince Edward Island Employment Development Agency
Prince Edward Island Jobs for Youth Program
Prince Edward Island Post Secondary Program
Prince Edward Island Watershed Alliance
Prince Edward Island Watershed Management Fund
Prince Edward Island Wildlife Conservation Fund
Programme de développement de la pêche sportive
Province of New Brunswick (SAC-2020-06b)
Qalipu Mi'kmaq First Nation
Québec-Labrador Foundation
R A Currie Biological Consultant
Rattling Brook Salmon Restoration Committee
Regional Service Commission 8
Richibucto River Association
Sackville Rivers Association
Sage Environmental Fund
Salmonid Preservation Association for the Waters of Newfoundland
Service Canada
Shediac Bay Watershed Association
Société de gestion des rivières de Gaspé
Société de Restauration et de Gestion de la Nouvelle
Société du saumon de la rivière Romaine
Société Hydro Donancona
Souris and Area Branch of the PEI Wildlife Federation
Sterling Hydrology Research Group
Stewardship Association of Municipalities
St. Anthony Basin Resources Inc.
St. Ignace Golf Club
St. Mary's First Nation
Sussex Fish and Game Association
The Confederacy of Mainland Mi'kmaq – Mi'kmaw Conservation Group
Three Rivers Mi'kmaq Band
Tobique First Nation
Tobique Watershed Association
Town of Grand Falls-Windsor
Trout Unlimited Canada Prince County Chapter
Tuckamore Lodge
Unama'ki Institute of Natural Resources
United States Geological Survey
Université Laval
Université du Québec à Rimouski
Université du Québec à Chicoutimi
University of Hull
University of New Brunswick
University of Prince Edward Island
Village of St. Louis
Ville de Cap-Santé
Vision H2O
Wild Salmon Unlimited
Willowbrook Watershed Services
Wolastoqey Nation of New Brunswick
Woodmillers Inc.
Wood PLC
World Wildlife Fund
WSP
Zecs Saumon