

ASF Strategic Plan Report to Boards of Directors, November 2021

Robert Otto - COO

I am pleased to provide an update on ASF's progress against our Strategic Plan (Blueprint for Saving Wild Atlantic Salmon) for the Autumn 2021 joint Board meeting. Once again due to the pandemic we will be meeting virtually and although we seem to be getting better with navigating preparations and execution of the meetings, I think a return to in-person meetings will be welcomed.

ASF adjusted to another year of pandemic operations very well. We did our work where needed through electronic means and were able to steer our way to solid progress, particularly over the spring and summer field seasons. Our Research and Environment program deployed an increased number of tags and devices in 2021 as a result of additional tag availability from those not deployed in 2020 and through involvement in partnered programs like the Environmental Studies Research Fund (ESRF). The effort to get to the cusp of eradicating smallmouth bass on the Miramichi would be impressive without the added pressures of planning and executing during Covid and although disappointing, puts us in a strong position for 2022.

ASF continues our assessment of progress against the Objectives and Activities contained in ASF's Strategic Plan. As previously described in reports, this Plan attempted to measure progress against Goals and Objectives based on ASF's own actions and not be dependent on other organizations for successful action. In the previous report ASF identified several areas where a pivot was needed after concluding limited progress was possible against the original activities. This report summarizes efforts to make progress against those new or revised actions. For example, we've become members of an international coalition to assist with efforts to contain and reduce the impacts of open net-pen aquaculture and will use that partnership to inform approaches to activating grassroots campaigns across Atlantic Canada.

Below please find a short overview of progress for each of the four Goals of the "Blueprint" Strategic Plan, and a more detailed assessment of ASF's progress against planned activities.

Goal #1 – Ensure Fisheries are Sustainable

Good Progress continues to be made for this Goal overall.

The 2021 Greenland salmon fishing season included changes from previous years put in place by the Greenland government, specifically staggered opening dates from south to north Greenland and a separation of the overall quota between these areas. This was intended to ensure access to salmon for more northerly communities where salmon typically arrive later in

the season. The latest figures available indicate a harvest of 25 metric tonnes (MT). As outlined in the President's report, the Greenland agreement was paused this year due to uncertainties and delays with elections for KNAPK, the agreement's Greenland partner.

ASF continue to support the First Nations fishery for striped bass in the Miramichi and the fishery for spring 2021 employed four nets, up from two previously. An early spring resulted in the fish moving upstream very early, and only the tail end of the run was effectively fished. The autumn fishery is currently very strong, and indications are the fishery for 2021 will be the most productive yet.

For 2021 our Research team was able to travel to Greenland for capture fieldwork to deploy satellite tags and included an increased effort at communications with and involvement by Greenland fishers and residents in the program. ASF once again used local boats and captains during capture fishing, with more widespread communications in the communities before our crews arrived. Our team took precautions to minimise Covid concerns before arrival and raised awareness of the research program and its objectives. ASF ended up PSAT-tagging 70 salmon primarily using two locally owned boats, with a third boat contributing several salmon captures on weekends.

ASF's Wild Salmon Watersheds (WSW) program includes several elements of Canada's Wild Atlantic Salmon Conservation Policy Implementation Plan (IP), and discussions continue with DFO to support the program and help DFO achieve their publicly stated progress. This is particularly timely as DFO's IP is to conclude at the end of 2021. We are aware that DFO has begun to discuss a new IP with stakeholders. The WSW program has the potential to resurrect and focus attention on new wild Atlantic salmon assessment sites. However, this will depend on the local priorities and data needs, but we expect at least some additional sites through the WSW program in the future.

Goal #2 – Understand Salmon Mortality - Tracking Programs

Good Progress has been made overall for this Goal.

As presented in the May 2021 report, ASF is a major partner in the Environmental Studies Research Fund (ESRF) program which is expanding tracking programs across eastern Canada. ESRF tags and transmitters are being deployed on rivers where ASF traditionally captures fish for tagging studies including the Restigouche, Cascapedia, and Miramichi. The following chart outlines the **numbers of tags** deployed and the target sample (in brackets):

	<u>Restigouche</u>	<u>Cascapedia</u>	<u>Miramichi</u>
ASF smolts	80 (80)	60 (60)	160 (160)
ESRF smolts	141 (up to 140)	70 (70)	70 (70)
ESRF kelts	51 (30)	22 (20)	31 (26)

Additional salmon were tagged on the Nepisiguit River in New Brunswick with 24 acoustic and satellite tags total. With kelt tagging, the fish are sometimes double tagged with both an acoustic and satellite tag, so that the number of tags does not always equate to number of fish. Partners involved in the tagging included Miramichi Salmon Association, Anqotum Resource Management, GMRC (Restigouche), DFO, Cascapedia River Society, and Gespe'gewaq Mi'gmaq Resource Council.

Experience with travel restrictions in 2020 guided our field planning for 2021, and our efforts have paid off with the large number of tags deployed. Additionally, after not being able to tag at Greenland in 2020 and after deploying 32 satellite tags on adult salmon in 2018 and 2019 combined, ASF's capture crew was able to deploy 70 satellite tags in 2021. This is a significant step in starting to understand Atlantic salmon migrations back to North America, with sample sizes larger than anything previously carried out. Data from the deployed tags is highly anticipated and will assist with determining subsequent deployment plans.

ASF R&E staff provided an increased level of support to US Programs in 2021 particularly on issues associated with the Kennebec River. The support helped with required reviews of FERC's relicensing of the Shawmut Dam and Brookfield's latest Species Protection Plan. Upcoming legal action and anticipated depositions will further require the expertise and support of ASF R&E Department to US Programs staff.

A significant portion of ASF's field season is spent preparing, deploying, retrieving, and downloading data from a huge array of sonic receivers used within rivers in Atlantic Canada, to our estuaries and bays, and extending to the Strait of Belle Isle and the Labrador Sea. Graham Chafe, ASF Senior Biologist, recently gave a presentation on this aspect of tracking program logistics at a virtual Research and Environment committee meeting.

Goal #3 – Contain and Reduce Impacts of Open Net-Pen Aquaculture

Some progress has been made for this Goal.

Based on the pivot outlined in May 2021 Strat Plan report, ASF has made progress on two new fronts supporting this strategic Goal. First, ASF has joined the Global Salmon Farming Resistance (GSFR) alliance, coordinated by the NGO *Re-Wildling Argentina*. Argentina recently became the

first nation to ban open net salmon farming due to the environmental impacts of the industry. GSFR is a global coalition of organizations, civil groups, and activists around the world united with one vision: oceans free from open net salmon farms and depleted marine ecosystems thriving once again. Steve Sutton is a member of the working group that shares information and actions that can bring a halt to the expansion and remove open net salmon farms from the ocean globally. The group is now seeking funding to directly support local campaigns against ONP salmon farming around the globe.

And secondly, to reduce the negative effects of open net pen salmon aquaculture on wild fish and the environment, and block industry expansion into new areas, ASF has designed a campaign to launch in Q1 2022 focused on the federal government and its commitments made to the North Atlantic Salmon Conservation Organization to eliminate escapes and reduce the effects of aquaculture parasites on wild fish to minimal levels. The campaign is based on the principles of engagement organizing, where local partners and individuals are empowered and encouraged to act, make statements, and react to developments. ASF will provide strategic guidance and help directly with high level advocacy to officials and elected representatives. The timeframe for the campaign is a single federal election cycle in Canada. Given a minority Liberal government was re-elected in September 2021, this cycle will likely last for 2-3 years. Over the next two months, ASF will cultivate local partners and develop specific materials and plans for the campaign.

Goal #4 – Improve Freshwater Connectivity and Productivity

Good progress has been made for this Goal.

ASF is improving fish passage, particularly in Maine under our US Programs. This summer we completed construction of a new road-stream crossing on Cummings Brook, a tributary of Temple Stream in the Town of Farmington. Next year, we are slated to begin construction of the Walton's Mill Dam Removal and Park Project that will restore access to more than 50 miles of high-quality salmon habitat in Temple Stream. ASF plans to construct fishways at two dam sites in 2022: Branch Pond (Sheepscot River) and Baskahegan Dam on the Mattawamkeag River (Penobscot River). ASF will soon hire an engineer to do final fishway engineering and design plans at two small dams on Eskutassis Stream, a tributary to the Passadumkeag River for construction for the summer of 2023.

The Kennebec River has been a priority for ASF dating back to the mid-1990s. ASF and several partners filed a lawsuit in U.S. federal court against Brookfield Renewable Power for violations of the Endangered Species Act (ESA) at four of their dams on the Kennebec River. Subsequently, ASF and the other groups asked the federal court to issue a preliminary injunction to stop or curtail operations at the four dams during autumn and spring downstream migration periods. ASF has committed significant time preparing several regulatory filings over the summer, including comments on the Federal Energy Regulatory Commission's (FERC) Draft

Environmental Assessment for the relicensing of the Shawmut Dam as well as commenting on Brookfield's latest proposed Species Protection Plans (SPPs) for the dams. The International and Government Affairs report contains an extended overview of ASF activities on the Kennebec.

Wild Salmon Watersheds (WSW) conceptual development has continued since Geoff Giffin completed his work with ASF in spring of this year and presented his progress at the Board meeting of 6 May 2021. Feedback received on his presentation and the program concept and design was uniformly positive and excited. An in-depth presentation is planned for the Board meeting on 11 November 2021 focussing on progress since May 2021 including preparations to launch a pilot program in autumn 2021.

ASF continues to engage with the Province of New Brunswick on the expansion of provincial protected areas from 4% to 10%. ASF's proposal to government included additional known cold-water sources across the province as part of the expanded protected areas. The government of New Brunswick continues to make announcements of new areas protected, and ASF continues to be pleased with the locations identified. You can find the maps of currently identified areas within New Brunswick on the following site:

https://www2.gnb.ca/content/gnb/en/departments/erd/promo/nature_legacy/involved.html

Scroll down and click on the "View Map" button.

The Miramichi Lake smallmouth bass eradication project, as you are most likely aware, did not execute in August and September 2021. All permits, equipment, human resource, and infrastructure were in place to start the eradication on the morning of 17 August 2021, when protesters at the lake delayed project commencement and ultimately caused the project to be postponed until 2022. Please refer to a more fulsome description in the Regional Affairs Committee report. Also, a comprehensive presentation is planned for the Board meeting on 11 November 2021.

The cold-water refugia project partnership continues since starting in 2020. It builds off 9 previous enhancements by the MSA between 2014-2019. Thermal refugia are key to helping the watershed become more resilient to climate change and provide salmon critical habitat during warm periods in summer. Three sites have been completed so far (Wildcat Brook, McKenzie Brook, and Morse Brook), with five planned for construction in 2022. Surveys, designs, and construction are primarily funded through DFO's Nature Fund, with additional funding support from the Atlantic Salmon Conservation Foundation.

Appendix 1 – Assessment of 2018-19 Strategic Mileposts in Support of ASF Blueprint

A “stoplight” approach is being used to monitor and report on progress of the Blueprint:

- **Green** – On track; good progress being made consistent with plan
- **Yellow** – Some progress being made; needs attention to avoid falling behind planned targets
- **Red** – Little progress; requires focused effort to get back on planned track

The reporting structure below within each of the four goals in the Blueprint follows this example:

Blueprint Activity

Blueprint Outcome/Output

Milepost

Each Activity of the Strategic Plan (SP) is included in the assessment below. We gauged progress against each of the Outcomes / Outputs associated with the various Activities from the Strategic Plan (multi-year) by determining Mileposts for the 2020-21 ASF fiscal year (annual) that move us substantially toward our targets. Each Milepost was included in at least one of the Operations Departments (Regional Programs, Research and Environment, Communications, and Outreach and Engagement) workplans for 2020-21 and will be for 2021-22, unless otherwise indicated.

Goal #1 – Ensure Fisheries are Sustainable

- **Pursue and maintain conservation agreements for Greenland and Faroes commercial WAS fishery.**

Signed agreement to suspend commercial fisheries.

COMPLETED

- **Advocate to Canada, USA, and Greenland to set a low annual subsistence quota for Greenland through NASCO that is consistent with scientific advice (ICES), including reliable monitoring and reporting systems.**

Greenland implements an annual limit on their subsistence fishery and introduces effective monitoring/reporting of catch for the Greenland subsistence harvest.

Good Progress

- **ASF actively engages communities and fishers in Greenland in salmon research.**

Build sense of cooperation with other WAS conservation partners.

Good Progress

- **Establish and develop strong and productive working relationships with leading First Nations (FN) as partners in conservation.**

A well-established network of contacts in select FN communities and aboriginal groups throughout the regions through which ASF can regularly connect and share information;

Good Progress

FNs have the opportunity to showcase how they value the resource.

Some Progress

Invitations to attend meetings on WAS conservation as a trusted partner, including First Nations, DFO, and the Province of Quebec.

Good Progress

- **Increased engagement and direct involvement of FN in salmon research, including joint research projects that bring real benefits to FN communities.**

Develop a sense of partnership in defining and understanding salmon conservation issues of mutual interest through the application of both traditional knowledge and scientific methods of understanding.

Some Progress

Direct and meaningful inclusion of Indigenous people (e.g., placements, cooperative work and training opportunities) in ASF research and conservation activities.

Good Progress

- **Actively advocate for, where abundance permits and is agreeable by FN communities, alternative species (e.g., striped bass, snow crab, lobster) substitution for salmon in FN fisheries.**

Increasing FN harvest of alternate fish species with a corresponding decrease in salmon harvest.

Little Progress

Adjustment / Pivot: Continue to support FN harvests in other fisheries, but ASF cannot effectively advocate for corresponding decreases in FSC salmon fisheries.

- **Actively participate in DFO’s Working Group to develop implementation plans for the recently (2017) revised WAS Conservation Policy. These plans must respect new inputs available since the WASCP was first drafted in 2009 (MAC recommendations, DFO Forward Plan, Standing Committee recommendations and Minister’s response).**

A clearly defined policy and regionally based and focused implementation plans for conservation and restoration of WAS based on the Precautionary Approach.

COMPLETED

A single policy document with detailed implementation plans that will be presented to ASAC in spring 2019 and reviewed every two years going forward; number of ideas and suggestions adopted by Working Group

Little Progress

- **Advocate to and work with the appropriate management agencies to institute river-specific recreational angling through the Precautionary Approach (PA) framework in all WAS recreational fishery regions.**

Sustainable, abundance-based harvest levels and fishery management plans based on the Precautionary Approach;

Some Progress

Increased sustainability in other fisheries (i.e., First Nations, Greenland, SP+M).

Some Progress

Additional rivers and regions selected for use of Precautionary Approach in Gulf Region, as well as Maritimes and Newfoundland and Labrador.

Little Progress

Adjustment / Pivot: DFO has selected the Miramichi as a pilot site for establishing the PA. Until that project is completed and implemented (ASF is part of that working group with DFO) this outcome, and work in support of it, is paused.

- **Advocate for and participate as appropriate with management agencies to expand river-specific monitoring, stock assessment, in-season review(s) and fishery/harvest management.**

Abundance-based harvest levels (Precautionary Approach); Expand existing index river monitoring;

Some Progress

Increased accuracy and precision of assessments through new approaches, partnerships, and technologies;

Little Progress

New index rivers established in key/under-represented areas;

Little Progress

Improved catch reporting and statistics in all Provinces, including expansion of electronic systems

Little Progress

Adjustment / Pivot: DFO is limited at least by budget and will not on their own expand the number of index rivers or monitoring sites. Covid has resulted in DFO struggling to maintain their existing portfolio of sites. ASF will work through our partners and also the Wild Salmon Watersheds program to help achieve these outcomes.

Goal #2 – Understand Salmon Mortality - Tracking Programs

- **Expand tracking within GoSL, Newfoundland and Labrador, and Greenland, both in types and numbers of tags and receiver arrays / positions through ASF and partnered programs.**

Determine specific spatial distributions in the marine environment throughout their residency (i.e. from the time they leave freshwater to their return from Labrador Sea and Greenland); Determine migration success through defined stages of the marine migration.

Good Progress

- **Preparation and publication of peer-reviewed manuscripts and technical reports through in-house research staff and other partnerships; ensure circulation to Councils, affiliates, partners and other interested groups and availability of all materials on the ASF website.**

Peer-reviewed publications; presentations at conferences and symposia; internal / field report series established.

Some Progress

- **Analyze results from tracking programs with known patterns of oceanographic and environmental conditions.**

Determine why fish are detected where they are and when they are there. We do this by comparing/contrasting biotic and abiotic variables from locations where fish are and where fish aren't to infer what type of factors determine their marine distribution; Determine how annual variation in identified biotic and abiotic predictors of the marine distribution of Atlantic salmon covary with migration success through different migration stages.

Engage with various institutions to scope out next steps for linking ASF tracking data with physical and biological oceanographic features.

Good Progress

- **Advocate to the relevant management agencies in Canada and the USA, as well as NASCO to implement effective mitigation measures to protect and conserve WAS in coastal and marine ecosystems.**

Minimize unintended population-level impacts on WAS.

Seek out partnerships and R&D opportunities for novel technologies that will advance our understanding of spatial and temporal distribution of salmon in the marine environment.

Good Progress

Advising on policy development to conserve and protect wild Atlantic salmon.

Some Progress

Respond to ASF science needs. Conduct reviews and assessments, work with councils and affiliates, speaking engagements.

Good Progress

Goal #3 – Contain and Reduce Impacts of Open Net-Pen Salmon Aquaculture

- **Engage with appropriate partners to ensure ASF contributes to the potential development of a federal Aquaculture Act, and to the strengthening of the Fisheries Act and associated regulations and policies resulting in an appropriate legislative framework to better protect WAS from impacts of the salmon aquaculture industry.**

Any development of an Aquaculture Act contains provisions to protect WAS populations and focuses on industry best practices and strong regulation and enforcement.

Some Progress

Inclusion of protections from aquaculture industry in Fisheries Act legislation and associated regulations, policies and codes of practice.

Good Progress

- **Advocate for the creation of ONP salmon aquaculture-free zones based on current distribution of aquaculture sites, areas suitable for industry expansion, and WAS rivers; integrate with efforts to establish protected WAS watersheds.**

Agreement and support from appropriate management authorities on concept of aquaculture free zones.

Little Progress

Adjustment / Pivot: ASF will continue to work to eliminate impacts of ONP aquaculture through our advocacy and legal options as necessary, but we should not continue expending any money and time to establish aquaculture-free zones in collaboration with provincial governments in Atlantic Canada. Involvement with the GSFR alliance will be valuable to ASF's upcoming net pen salmon farming campaign.

Goal #4 – Improve Freshwater Connectivity and Productivity

- **Advocate for and support establishment of wild WAS watersheds where WAS populations can flourish.**

Identify candidate watersheds; Identify stakeholders and prepare communication plan.

Good Progress

Introduce concept to stakeholders; Determine levels of support and main challenges; Collaborate with stakeholders to achieve as many common targets as possible.

Good Progress

- **Work in coalitions to address the impacts of hydropower and non-hydropower dams through removals, better upstream and downstream fish passes, and improved policy, regulations and license requirements that improve flows for fish.**

Further progress to eliminate barriers to fish passage, particularly in N.E. USA;

Good Progress

Update inventory of barriers to fish passage in Atlantic Canada and Quebec, coordinated with Councils and local affiliates.

Little Progress

Adjustment / Pivot: This is a huge effort to complete and is currently not a high priority. ASF and partners will work to remove any barriers, as necessary.

Improved access to river and lake habitats;

Good Progress

Increased knowledge of barriers limiting freshwater production of WAS;

Good Progress

Increased production potential of WAS in high quality habitat where fish passage is improved;

Good Progress

Increased resilience of watersheds to climate change;

Good Progress

Increased populations of other species salmon depend on such as river herring and shad.

Good Progress

- **Advocate to the appropriate agencies for stricter licensing processes and consultations during planning and design phases of new hydro dams.**

Intervention in license, legal, and regulatory procedures.

Good Progress

ASF, Councils, and affiliates play key collaborative role in all discussions regarding new licensing for proposed and existing hydro dams, ensuring that the needs of functional fish passage facilities for WAS are a top priority to be addressed by proponents and regulators.

Good Progress

- **Further develop and promote the content in ASF's WAS Freshwater Recovery Strategy to make it more consumable by affiliates, watershed and FN groups conducting habitat restoration programs.**

Materials and documentation readily available and updated as needed on ASF's website to assist and guide groups that are planning WAS restoration work in their watershed(s); Meetings with, presentations to Councils, Affiliates and other conservation groups to highlight value of the Strategy; Expert advice given to groups and collaborative efforts to restore and improve freshwater productivity based on the tenets of the Strategy.

Some Progress

WAS freshwater conservation and restoration activities follow guidance provided by the Strategy.

Good Progress

- **Encourage and actively support identifying land-use issues in all regions that impact WAS and use results to guide focused, collaborative regional advocacy and restoration efforts.**

Regional advocacy plans to address prioritized land-use impacts on WAS.

Little Progress

Adjustment / Pivot: Developing these plans is currently not a high priority to complete. ASF and partners will continue to work and solve land use impacts on WAS as they become known to us. Wild Salmon Watersheds will include land use issues in those watersheds that become part of the network.

- **Support and undertake baseline requirements, help to secure funding sources, and ensure all permitting is completed for smallmouth bass (SMB) eradication from Miramichi Lake by 2019, and similarly for any other invasive species threats that arise.**

Proponent is identified for eradication program;

COMPLETED

Permits obtained, consultations undertaken, funding secured;

Good Progress

Physical infrastructure for eradication activities in place.

COMPLETED

SMB eradication completed by September 2020.

NOT POSSIBLE