

DFO Ministerial Advisory Committee on Atlantic Salmon Meeting

March 23rd, 2015 in Moncton, NB

Souris and Area Branch of the PEI Wildlife Federation

In December, 2014, the Honourable Gail Shea, Minister of Fisheries and Oceans announced the creation of a Ministerial Advisory Committee on Atlantic Salmon. For more information click here (http://www.glf.dfo-mpo.gc.ca/media_regions?media_id=155). This committee is tasked with determining the course of action to address the low returns of Atlantic Salmon on the Atlantic Coast.

Stakeholders are invited to present to the committee through 4 meetings this spring. On March 23rd, Souris & Area Branch staff travelled to Moncton to present to the committee. We presented on the status of our Atlantic Salmon stocks and made recommendations on how to further improve Atlantic Salmon populations in our region. Other representatives from PEI at this meeting included: Rosie MacFarlane, PEI Freshwater Fisheries Biologist and Megan Harris, Watershed Coordinator at Central Queens Branch of the PEI Wildlife Federation. Scott Roloson, UPEI student was scheduled to present recommendations from PEI's Atlantic Salmon Federation and Salmon Council, however, weather prevented him from attending. His recommendations have been forwarded to the committee.

We collaborated with the other PEI delegates so that a clear cohesive message on PEI Atlantic Salmon stocks was presented and that we did not overlap on points as each presenter was only given 5 minutes of time.

A copy of our presentation to the committee can be found at the bottom of this document.

The main points of our presentation included:

- We presented that our management zone is a success story in terms of Atlantic Salmon and that we have a community invested in improving our environment and increasing Atlantic Salmon population numbers.
- Since 2008, we have seen increases in our Atlantic Salmon populations. We now have Atlantic Salmon in 7 rivers in our region (potentially 8 with Souris River) compared to 4 rivers in 2008.
- The number of Atlantic Salmon redds has increased over the past few years
- We accomplished the increase in Atlantic Salmon through habitat enhancement and beaver management. These activities were laid out in watershed management plans developed with the community. We clear and maintain 100 km of streams ensuring that Atlantic Salmon can reach key spawning habitats. Beaver management is necessary as this species is not native to our island and is prolific at blocking Atlantic Salmon from reaching critical habitat areas. Beaver management is a very time consuming activity.
- We have worked with farmers on the implementation and study of best management practices to limit agricultural run-off into our streams. Our organization has an excellent working relationship with agricultural producers in our region. Unfortunately, funding for many of these programs has been cut.
- The increased riparian buffer zones within some areas of our management zone is critical for the protection of Atlantic Salmon habitat. Eastern Kings Community Council has bylaws in effect for

60m buffer zones as opposed to the 15 m buffer zones legislated for PEI. Our increased forest cover helps to protect the stocks however habitat infractions is still an on-going concern.

- We are a non profit organization completing this work and rely on the dedicated work of a volunteer board of directors and minimal paid staff to complete the work. Our funding comes through a wide variety of grants and programs. Our administrative load is high to fulfill the necessary reporting for our funding. Our funding is not consistent and it is hard to plan ahead as we are not guaranteed funding from year to year.
- Recent research by Laval University identified that Atlantic Salmon from 2 rivers within our management zone (North Lake Creek and Cross River) as having a unique genetic signature compared to other populations in the Gulf of St. Lawrence (Moore et al. 2014). This unique strain has been potentially identified as being "PEI's ancestral strain of Atlantic Salmon." There is limited information known on the characteristics of our populations and how biological traits might differ from other island and Gulf populations. For example, we know that migration timing for our population is later in the fall than most other island populations but it is possible that the migration route could be different? How many winters do our Atlantic Salmon spend at sea? How many eggs per redd are laid by each Atlantic Salmon female? These are all questions that we do not have answers for. Further research into our populations is necessary for the conservation and protection of our Atlantic Salmon.

Our recommendations to the Ministerial Advisory Committee include:

- 1) Increased DFO support for Atlantic Salmon research especially on small river systems on Prince Edward Island. The contribution of small rivers to the overall Atlantic Salmon population is important. We require increased technical and logistical support from DFO help protect our Atlantic Salmon Stocks
- 2) Increased funding for non-profits to complete stream enhancement work aimed at improving Atlantic Salmon stocks. More consistent funding is key for our continued success. The matching dollar requirement of 50% for many federal funding programs is difficult for our organization as we do not have access to funding from large trust funds and companies.
- 3) Increased funding for student employment in the environment non-profit sector. Hiring students is ideal as we can instill a sense of environmental stewardship at a young age.
- 4) Increased research into the unique genetic strain of Atlantic Salmon in North Lake Creek and Cross River.
- 5) Increased DFO presence on PEI especially with regards to DFO staff being involved in stewardship activities and the enforcement of landuse infractions.

We recognize that mortality and fishing pressure at sea is an important issue to the overall sustainability of Atlantic Salmon stocks. Rosie, Scott and Megan included recommendations in their presentations about this issue.

Souris and Area Branch of the PEI Wildlife

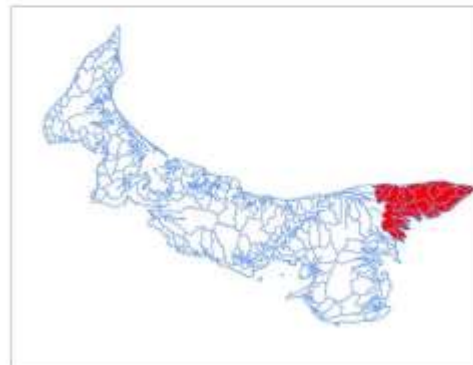


Fred Cheverie
Watershed Coordinator

Souris & Area Branch of PEI Wildlife Federation

The Souris & Area Branch of the PEI Wildlife Federation is a non-profit, environmental organization dedicated to the conservation, protection and enhancement of watersheds in north eastern Kings County

- Established in 1954
- Approximately 200 members
- Lead by Board of Directors with 2 staff
- Management zone encompasses
 - ~11 % of the island
 - 62,000 hectares
 - 24 watersheds
 - 8 watersheds with Atlantic Salmon



Atlantic Salmon in our management zone

- In 2008, it was documented that we had Atlantic Salmon in 4 rivers
- In 2014, we counted Atlantic Salmon redds in 7 rivers and possibly 1 more river
- Redds found in Bear River in 2013 and 2014 from a population that was thought to have disappeared prior to 2002.
- Cow River and Hay River AS populations were thought to have disappeared between 2002 and 2008 however since 2011 redds have been found.



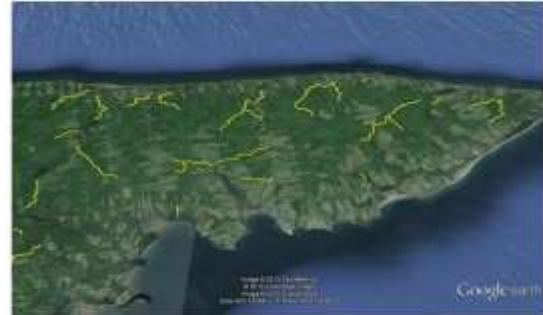
Atlantic Salmon Redd Counts in our zone

Watershed	1991	1992	1993	2004	2005	2008	2009	2010	2011	2012	2013	2014
Bear									0	0	16	3
Cow River									4	1	50	12
Cross River						120	70	100	190	83	268	193
Hay River									1	3	43	15
Naufage River						100	32	33	429	43	453	217
North Lake Creek	29	200	36	84	68	200	213	205	355	106	333	183
Priest Pond Creek						11	8	13	20	21	151	129
Souris River									0	0	0	2
Total	29	200	36	84	68	431	323	351	999	257	1314	754

As our redd counts have met set Conservation Limits, we have requested a limited catch and release Atlantic Salmon season for Cross River, North Lake Creek and Naufage River starting in 2015.

How we have accomplished salmon increases

- Improved habitat, increased connectivity ensuring that Atlantic Salmon can reach spawning and rearing habitat
 - In 2014, we walked and cleared 100 km of streams
- Removal of beavers and dams – intensive beaver management
 - Very time consuming!
- Working with farmers and agricultural producers on landuse concerns
 - Funding for large multi-year project recently cut
- Monitoring including salmon redd counts
 - Limited resources available for smolt or juvenile surveys
- Funding through a variety of agencies/government including: ASCF, RCFPP, Government PEI, HSP, PEI WCF,
 - Having this variety of funding requires large administrative duties.

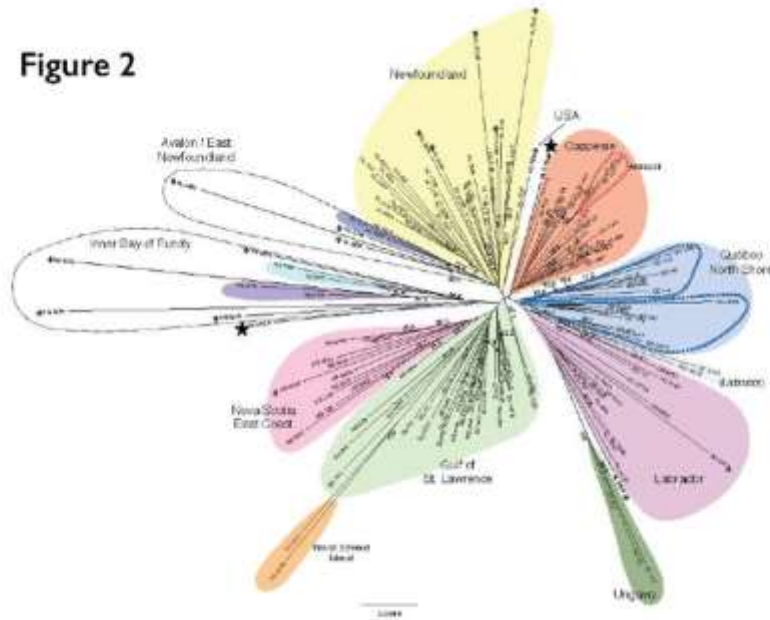


Yellow lines indicate areas of stream cleared and stream enhancement completed in 2014

Unique genetic population

- North Lake Creek and Cross River were identified as being a unique genetic population by study completed by Moore et al (2014) out of Laval University
 - PEI's ancestral strain of Atlantic Salmon
- Limited life history information known about our AS populations
 - We know that our fish return later to spawn than other island populations
 - Different ocean migration route?
 - Where are our fish holding before entering the streams? Predation risk?
 - How extensive is the ancestral strain? Does it extend to other creeks in our region?
 - Number of adults per redd? Number of eggs per female?
 - Smolt production values?
 - Many questions with few answers

Figure 2



Moore et al 2014

Recommendations for Committee

Increased support from DFO with our efforts and other non-profits effort to conserve Atlantic Salmon on PEI

- Increased research and study of small river populations and PEI populations.
- Increased funding for conservation efforts (more consistent funding)
- Research and funding of Cross River and North Lake Creek unique genetic population (Currently, we as a non-profit are leading the charge on this research project).

Increased DFO stewardship and enforcement for landuse infractions

- Increased DFO presence on PEI