

I want to thank the South Shore Chapter of the Council of Canadians for the opportunity to respond to some issues I have with Silver Donald Cameron's movie Salmon Wars.

I appreciated the thoughtful format that was given to the January 25th viewing at the Mahone Bay Centre. Watching the movie, then having a ten minute break followed by a "talking circle" allowed for people to share two minutes with those gathered. I was able to speak twice. I had prepared notes with me that evening that addressed some concerns I had with the movie from a previous viewing.

I asked Helen Lanthier if it would be possible to send those notes to them to be sent out to members to share my thoughts.

In the movie, Silver Donald Cameron claims that our government has plans to establish massive new fish farms and expand existing fish farms around the province. To set some context, open pen fish farms began in Nova Scotia in the 1980's with very few regulations in place and there was a lack of understanding as to how these farms should be run.

Under past Liberal and Conservative governments, over 50 open pen licences were issued. Our government has moved very cautiously since we were elected, approving only two new projects, one in Jordan Bay and one in St. Mary's Bay. Aquaculture is very diverse in our province from shellfish and finfish to aquatic plant harvesting, and we have created our Aquaculture Strategy to address the ongoing issues that face the industry.

Through consultation, we are creating regulations and legislation that we hope will build public confidence in the industry. As I mentioned on the 25th, we started a study in January regarding closed containment farming which will be complete in the spring.

Have a look at the Aquaculture Strategy for the complete picture.
www.gov.ns.ca/fish/NS-Aquaculture-Policy.pdf

Here are some specific issues the movie puts forward.

Claim: Cooke Aquaculture has 4 applications in to expand or establish operations in South West Nova

The farm in Port Mouton isn't owned by Cooke, it's owned by Ocean Trout. Cooke aren't planning an expansion in Port Mouton. Cooke aren't planning to expand salmon farming in Shelburne Harbour. They are planning on opening a processing plant. Cooke relocated its sites in Shelburne Harbour a few years ago. This required some changes to the lease but it was not an expansion.

Claim: NS Farms are rampant with sea lice.

We haven't had a treatable case of Sea Lice in Nova Scotia in over 10 years. As such salmon farms haven't been treated for sea lice in NS for 10 years.

Claim: To prevent sea lice food is pumped full of drugs and pesticides.

Regular fish food doesn't contain drugs or pesticides. If an operator wants to use food containing pesticides they first must apply for a permit from the province. That hasn't happened in over a decade.

Claim: Cooke has said they are expanding in Nova Scotia because the regulations are weaker

than those in Maine.

Maine's salmon farming industry has tripled since 2001 and is currently valued at approximately \$75 million. Data in 2011 said that every active salmon farm in Maine is owned by Cooke aquaculture which leads one to think that they can deal with Maine's regulations.

Claim: Industry provides their own environmental assessments which are simply reviewed by government.

All the salmon farm sites our government have approved, received a full review by the Federal Canadian Environment Assessment Agency.

Claim: Government Ignores Published Scientific reports about aquaculture? The government and industry hide research from the public.

Province posts the conditions of new leases on-line. The federal government and the Canadian Aquaculture Association sponsor an on-line data base where over 1000 scholarly journal articles pertaining to salmon farming can be found. The Web site is:

<http://www.aquacultureassociation.ca/database/salmon>

The Community with the assistance of Dalhousie University uncovered the damaging effects of the fish farm in Port Mouton.

It's true that the Friends of Port Mouton conducted a research project in Port Mouton with the Assistance of Dr. Jon Grant a Professor of Oceanography at Dalhousie University.

Dr. Grant strongly disagreed with the conclusions of the friends of Port Mouton. In fact he thought they completely misinterpreted the data he collected in an attempt to achieve their own goals. He was so frustrated that in February of 2012, he wrote the following letter to the Chronicle Herald.

I have been reading the debate on fish farming and feel compelled to respond. I am a researcher with 25 years of experience examining aquaculture-environment interactions. I have worked with government, industry and community groups, and published dozens of papers in scientific journals on this topic.

The newspaper is not the place to debate the scientific literature, and I find it tiresome that so many people are certain of "the truth." I will thus make only general comments.

First, one of the great pieces of misinformation surrounding this issue is that government regulators are somehow lax or irresponsible in the decision process.

Both federal and provincial governments spend countless hours and dollars examining methods of assessing sustainability in aquaculture. This occurs in field research on fish farms, computer modelling, and numerous meetings debating how results can shed light on improved monitoring and regulation. As a participant in these activities, I can verify the time investment.

Second, the doom scenarios surrounding fish farming are overstated.

There is no question that sediment beneath fish cages suffers from too much waste input, although this "footprint" is rarely much larger than the cage itself. In contrast, the ecosystem-wide effects of fish farming have seldom been demonstrated, partially because it is difficult to assess ecosystem-level properties, and partially because it is difficult to assign cause-effect to aquaculture as being responsible.

There are multiple efforts underway to decrease the impact of aquaculture on the environment at every level. These include improvements in husbandry as well as in monitoring.

Fish farming is a valid use of ocean resources, but citizens have a right to expect sustainability. However, the debate must develop from evidence-based arguments rather than fear-mongering and rhetoric.

Jon Grant, PhD, lives in Halifax.

Claim: Gardner Pinfold set the economic value of wild salmon in Eastern Canada at \$150 million.

The province runs a salmon hatchery along the Margaree River for restocking purposes, and our aquaculture road map identifies that part of the province as unsuitable for open pen salmon farming. We wouldn't make any decisions that would impact wild salmon. Recently Snow Island Salmon withdrew one of its three applications along the Eastern Shore due to concerns raised about its proximity to a wild salmon run.

That being said, the study referenced was paid for by the Atlantic Salmon Federation. Federal numbers show the value of wild salmon in Atlantic Canada closer to \$62 million. Furthermore, the Gardner Pinfold study says that only \$10 million of that value is in Nova Scotia. In New Brunswick, Gardner Pinfold suggests the Wild Salmon industry is worth \$70 million dollars (the most in Eastern Canada). Incidentally, New Brunswick's farmed salmon industry has 100 farms and Nova Scotia has 12.

Claim: The salmon you buy is laced with antibiotics and dye.

Under extreme circumstances salmon are treated with antibiotics. However, the CFIA does not allow for the sale of farmed salmon containing antibiotics. In fact, salmon treated with antibiotics must remain in the water for several months before they can be processed to ensure no antibiotics are in their system.

The "dye" that turns salmon pink is not actually a dye. Salmon in the wild eat large amounts of food that contain the compounds astaxanthin and canthaxanthin. That's what turns them pink. Farmed salmon don't get enough of these compounds naturally so they have to add it to their food. The additive, which Salmon Wars classifies as a dye is actually derived from things like mushrooms, carrots and sweet potatoes.

I have learned over the years that there are many sides to any issue and keeping an open mind really helps. I have always held Silver Donald Cameron in high regard and he talks about issues that concern us all.

Aquaculture in Nova Scotia has had its challenges over the years. Hopefully with better regulations

and the ongoing exchange of current information , things will improve . I would be pleased to bring that information to the South Shore Council of Canadians in the future.

Pam Birdsall
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