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Chair

Mr. Scott Simms

Standing Committee on Fisheries and Oceans

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● (1550)

[*English*]

The Vice-Chair (Mr. Robert Sopuck (Dauphin—Swan River—Neepawa, CPC)): Let's come to order, colleagues.

Our apologies to our guests. We had a couple of votes in Parliament, so we apologize for the delay. We're starting our third meeting of our study of wild Atlantic salmon in eastern Canada.

We have four guests, all by video conference—Mark Hambrook, Jerry Doak, Dr. Susanna Fuller, and Mr. James Irving.

Colleagues, this entire meeting is by video conference, so after the presentations, if you have a specific question, please name the person to whom you are directing that question.

To our presenters, each presentation is 10 minutes, and I assume there will be four presentations. We'll allow those first and then we'll have a round of questioning by the members of the committee.

I understand, Mr. Irving, that your time is somewhat limited, so perhaps you would like to go first.

Mr. James D. Irving (Co-Chief Executive Officer, Director, Atlantic Salmon Federation, J.D. Irving, Limited): I've changed my schedule around, so I'm here for the afternoon.

The Vice-Chair (Mr. Robert Sopuck): Well, then, we'll go in the order on our sheet. We're fairly firm on the 10 minutes, because we want enough time for questions, especially given the delay in the meeting. We will start with Mr. Mark Hambrook, president of the Miramichi Salmon Association.

You have 10 minutes, Mr. Hambrook.

Mr. Mark Hambrook (President, Miramichi Salmon Association Inc.): Thank you, Mr. Chairman, for allowing us this opportunity to present the views of the Miramichi Salmon Association to this parliamentary committee on wild Atlantic salmon.

The Miramichi Salmon Association was formed 63 years ago to try to be a voice for the preservation of Atlantic salmon, especially on the Miramichi River. Over time we have been quite effective in raising awareness of conservation, and raising funds to benefit the Atlantic salmon.

We are now in a position to be able to assist Fisheries and Oceans Canada in obtaining information on the status of Atlantic salmon stocks and participate in research with universities, government, and other non-profits. Moreover, we have assumed responsibility for the operation of Canada's oldest salmon hatchery from the DFO to stock salmon in the Miramichi. The MSA spends about $1 million annually in its conservation mission on the Miramichi, yet the salmon are still in decline.

The Atlantic salmon has suffered at the hands of man from the time European settlers arrived on our shores, and although we've come a long way in improving harmful practices of the past, we are still faced with global challenges such as acid rain and global warming.

The Miramichi River has been the great producer of Atlantic salmon in North America as a consequence really of under-development in our area. There are no dams in the watershed, very little agriculture, no operating mines, and no large industrial polluters. The watershed is sparsely populated and is mostly forest land, so water quality is good, and if salmon can't thrive here, then there's no hope for the other rivers in the Maritimes that have far more problems than we do.

Salmon is king in our region and it employs an estimated 636 full-time equivalent jobs, which is like two medium-sized industries with over 300 employees each in a very rural area. It's very important to our economy. The citizens in our area are very concerned for the future of the Atlantic salmon and don't want the river closed to recreational fishing for salmon like every other river to the south of us in New Brunswick. The Miramichi is the front line in the battle to preserve the Atlantic salmon.

I worked for 18 years with DFO. I started my career in the 1970s in the Atlantic salmon enhancement unit, which no longer exists. Our job was to restore populations of salmon to rivers that weren't meeting their conservation levels. We tried to identify the cause of the decline and the possible solutions to restore the populations. For example, today the rivers adjacent to the Miramichi to the south of us, the Kouchibouguac, the Richibucto, the Bouctouche Rivers, have been closed to salmon angling for approximately 15 years and there is little if any effort on the part of DFO to do anything to restore the population. The salmon are not extinct on these rivers, so DFO is content to close the rivers and do nothing.

When this happens, local citizens can become detached from the river and the stewardship of that resource is lost. People will work for a cause if there is hope for success, and they look to government for the leadership to plan a recovery strategy.

The Miramichi Salmon Association clearly believes that any harvest of a species needs to be based upon abundance, but there needs to be community engagement to save a species. One way to do this with Atlantic salmon is to allow catch-and-release angling while the population rebuilds.

The MSA promotes catch-and-release angling on the Miramichi until stocks rebuild. Many people support this initiative, but some tell us that once you take the harvest away, you will never get it back and that if DFO ever closes the river to salmon angling, then it will be lost forever. This is because DFO has become a regulator only and has lost its capacity to direct recovery strategies, at least in our region.

We would like to see DFO add more biologists to its staff to regain this capacity. In this vacuum, a group called CAST has emerged to tackle some of the bigger issues for salmon recovery in our area. This coalition of non-profit groups, large industries, and academia has been formed to identify some of the larger issues and propose solutions that will complement the DFO response to the ministerial advisory committee report.

During a year of planning and discussing the required actions to restore the population by CAST, we could not get DFO participation at a meeting, as they simply said they didn't have enough human resources to send somebody.

● (1555)

The federal government should be taking the lead to recover the Atlantic salmon, but you're not alone. There are eager partners who have the expertise, dedication, and cash to support a federal government recovery program, and we are ready now to partner with you to save the Atlantic salmon. Please don't ignore us.

We understand that many of the problems facing Atlantic salmon are encountered in the marine environment, and MSA has partnered with the Atlantic Salmon Federation over the past number of years to put transmitters in salmon smolts and adults, to track their movements in the ocean to determine mortality zones. We would like to see a balance in nature where, for example, striped bass populations are healthy, but not dominating as they are now. It's the same for grey seals in the Gulf of Saint Lawrence.

For river groups such as ours, there is always important work to be done at the local level. We have an issue with an invasive species in our area, namely smallmouth bass, which was illegally introduced to Miramichi Lake on the southwest Miramichi River. To eradicate this invasive species, we have been pushing for changes to the Fisheries Act to allow for the use of rotenone, a pesticide that will kill only fish in a body of water. Although these changes to the act are complete, we have been discouraged by DFO. While it is one of the largest threats that we have in our freshwater system, permission to use rotenone to eradicate this species is remote.

With climate change here now, we also need to create cold water refugia for salmon in areas where the water gets extremely warm. We appreciate the DFO initiative called the recreational fisheries conservation partnerships program, which can provide up to 50% of the funds for habitat-related projects. We are using this money to create these sanctuaries, and we plan to continue to identify potential sites and do the required work.

We took over the operation of Canada's oldest fish hatchery from DFO in 1997 with the mandate to stock the river with salmon, in a similar fashion to what DFO had done over the previous 100 years. Times change and new techniques need to be developed. We have consulted with other professionals and have developed a top team of research scientists to direct a newer technique, which is the capture of wild smolts, raising them to adults in the hatchery and then releasing them to spawn naturally in the river.

We understand there might be theoretical risks associated with this technique and that is why the scientific team has developed an extensive monitoring program to address these issues. We know this technique doesn't address the fundamental reasons for the salmon's decline, but if successful, it can buy time until these issues are resolved. It can also save unique salmon stocks from a particular river, such as DFO has been doing with its gene banking program at the DFO Mactaquac hatchery for the Bay of Fundy rivers.

We need a comprehensive recovery strategy to reverse this decline in salmon populations, and we are hoping that DFO will announce this strategy in response to the report by the Minister’s Advisory Committee on Atlantic Salmon that was tabled in 2015.

Thank you very much.

● (1600)

The Vice-Chair (Mr. Robert Sopuck): Thank you. That was two minutes under the time, which we really appreciate.

Mr. Jerry Doak, you have 10 minutes.

Mr. Jerry Doak (Owner, W.W. Doak Fishing Tackle Shop, As an Individual): I'd like to thank the members of the committee, and in particular my MP, Pat Finnigan, for the invitation to appear before you today. I'm not speaking to you on behalf of any organization, but rather on behalf of the people of the Miramichi. We had previously been left out of some discussions that had forced a massive change in our relationship with the river, and so we very much appreciate the opportunity to address this committee.

The Miramichi has been my family's home for 200 years, and my family's work for 70 years. I have personally depended on the health of the salmon resource for 39 years of my adult life, and with my son now involved, and his two sons toddling about, you can understand why our family might take this issue quite seriously.

As a child growing up in my father's tackle shop, I encountered people from all over North America who could go anywhere they wished, but they chose to come to my river. That gave me an early understanding of how important the Atlantic salmon is to the identity of the Miramichi Valley and its people.

While I know that the scope of your mandate is broad, I make no apology for the narrowness of my focus. I've been called “salmo-centric” and, like the salmon itself, I am a product of my home waters, and indelibly imprinted by the river of my birth.

The Miramichi is not well served by a management strategy that lumps all rivers together under a blanket policy. It both needs and deserves a more targeted approach tailored to its particular set of unique characteristics. The Miramichi river system comprises of four distinct rivers, all of which have their own estuary and their own management challenges. It sustains a comparatively healthy and diverse population of wild Atlantic salmon, which, like all creatures, are cyclical in nature. Although the hatchery does play a role, it is not hatchery-dependent in the way we sometimes think of other rivers. It provides a thriving and challenging salmon fishery, which is a source of employment for some, a source of enjoyment for many, and at times a source of frustration for all.

It supports a highly developed angling infrastructure, which plays a primary role as a strong incentive for wise management of a valuable resource. It balances the interests of private riparian owners and their essential revenue stream with the local angler who has the river flowing through his bloodstream. It remains a persistently healthy watershed, despite concerns about encroachment by the forest industry. Its stellar reputation makes it a target for those who quickly exploit its name to amplify the shock value of any perceived downturn in salmon stocks.

The resilience of the Miramichi salmon run also makes it an attractive setting for those attempting to rescue or recreate a resource with some assurance of success. It enjoys a healthy mix of both one-sea winter grilse, approximately 90% of which are male, and the multi-sea winter salmon, about 85% of which are female. It has an exemplary record of practical management and selective harvest, which has only recently been disrupted.

Over the years, participation in the Miramichi salmon fishery has been based on an over-arching principle of mutual respect: respect for the value of the non-resident fishery and for those whom it employs; respect for the reputation of the Miramichi, which attracts visitors from around the world; respect for the salmon resource and its cultural and economic significance to all Miramichiers; respect for the rights of first nations to a sustainable harvest; respect for fisheries regulations based upon sound science and practical considerations; respect by residents for private property rights that limit access to the most productive salmon pools through riparian ownership; and lastly, respect by visitors and guests for the local resident fishery and its unique attachment to the salmon resource.

It is the dramatic decline in this respect, in consideration for the local fishery, that is the greatest concern to me, not as a businessman, nor as a fisherman, but as a Miramichier. This decline began to surface in the mid-1990s as the direct result of a number of factors, which I can outline later if you wish. It found its voice in a book published 20 years ago, which quoted one prominent conservationist as saying, “There isn't enough room for everybody who wants to go salmon fishing, and I don't know where you draw the dividing line unless it's the people who can afford to pay their way.”

In our store, we gradually began to hear talk of the need to release grilse, coupled with references to local anglers as “meat men” or “fish killers”. By 1998, a strategy of peer pressure began to invade the fishery, and lines of division were clearly drawn. Private lodges and clubs were encouraged, and sometimes bullied, into adopting live release of grilse under the threat of censure if they failed to comply. In 2002, the province introduced a live-release licence, even though people were already free to release their grilse by choice, and bound to release their salmon by law. In 2015, DFO finally bowed to this pressure and is now being urged to continue this zero-harvest strategy indefinitely.

● (1605)

Perceived threats can often lead to the sacrifice of real liberties, and when personal preference becomes public policy, thought is seldom given to the people whose lives are most affected.

Consider DFO's cavalier decision to ban the use of double hooks last year, which lacked any scientific data to support the decision. The cost to individual anglers was severe, and to fly shops like mine who employ people all winter to produce flies for sale in the summer, it amounted to a $17,000 uncompensated loss, literally overnight. Imagine our frustration when it was discovered, after the season, that a variation order was never written to enforce it.

In 2010 DFO introduced a mid-season ban on grilse retention for the Northwest and Little Southwest Miramichi Rivers, which was later expanded to a season-wide restriction. In the six years since, no other measures have been taken to help those two rivers, and no study has been conducted to show any benefit from this measure, nor has any been called for.

In 2015 DFO chose to extend this to the Main Southwest Miramichi, and this has produced a dramatic exodus of local anglers from our river and with them goes an astute level of surveillance, participation, and protection. This is only partially reflected in the 44% decline in resident salmon licence sales, but more starkly visible in the empty pools where local people normally gather during the most productive weeks of the season.

Miramichiers know a thing or two about salmon and we're not easily fooled. Miramichiers know that our grilse don't go to Greenland, but our large salmon do. We've been releasing large salmon for 32 years, but with very little exemplary value. When a bully steals your lunch, the solution is not to stop taking your lunch.

We also know that salmon don't feed in fresh water, so their willingness to take a fly is not governed by appetite. As a result, it's not uncommon to fish for several days without hooking a fish. Everyone agrees that angling is not the problem, but restricting it seems to be the only solution.

We know that angling interception rates are very low, and the percentage of female grilse is even lower, all of which underlines the minimal impact of permitting a grilse retention fishery. The Miramichi has traditionally been able to support this fishery, and there is no reason to assume that it cannot continue to do so.

We know that the estuary of the Northwest Miramichi is being used as a breeding ground for a rampant and voracious population of striped bass, effectively putting our smolts through a meat grinder before they even have time to face the challenges of the open ocean.

We know that DFO continues to squander a perfect opportunity to develop a first nations commercial harvest of striped bass contingent upon the elimination of monofilament gill nets and switching to the exclusive use of trap nets for grilse.

We know that every other threat, whether seal, striped bass, cormorants, mergansers, sea birds, Greenland, St. Pierre and Miquelon, gaspereau nets, or gill nets all appear to be untouchable. We have grown tired of being the only touchable, just as a dog grows tired of being kicked by a man trying to look tough.

We know that DFO has failed to provide accurate adult population assessments. Counting facilities are often affected by high water events and produce highly unreliable estimates of current stocks. It is a disgrace that the cost of new electronic counters must be underwritten by the private sector, but their sizable investment underlies how little confidence is placed in current stock assessment data.

We know that the desire to produce as many smolts as possible by over-saturation of the habitat carries with it a strong risk of diminishing returns. There is good reason to suspect that our poor smolt survival at sea may be related to increased juvenile densities at home.

We know that DFO fails to understand that a permissible harvest does not translate into an actual harvest. Unlike a commercial fishery, angling is based upon a voluntary response considerably less lethal in its method. Regardless of the number of tags issued, angler retention averages far less than one per licence.

Finally, we know that DFO seems to operate on the assumption that anything natural is good, and anything that is anthropogenic is bad. Forest fires are natural, but we still fight them. Diseases are natural, but we still treat them. Man is a steward of nature, not an intruder. This stewardship requires wise use and hands-on engagement, not distant worship.

Miramichiers lives are not enriched so much by monetary gain as by an attachment to nature that fastens us here despite efforts to peel us away. To casually disrupt this connection is no small matter and one that should only be taken with the great care and sound science. We have seen little evidence of either one, and on behalf of the people of Miramichi, I would suggest that it's high time we did.

Thank you.

● (1610)

The Vice-Chair (Mr. Robert Sopuck): Thank you very much.

A couple of years ago, Mr. Doak, I had the honour of fishing with Vince Swazey on the Miramichi, so I can readily appreciate your passion for that wonderful water body.

Dr. Susanna Fuller with the Ecology Action Centre, you have 10 minutes.

Ms. Susanna Fuller (Coordinator, Marine Conservation, Ecology Action Centre): Thank you for inviting me here today.

We're excited that you are studying the subject of wild Atlantic salmon. The Ecology Action Centre was founded in 1971, and is Atlantic Canada's oldest and largest community environmental organization. Our marine program began in 1995, and we continue to work towards the conservation of fish stocks with annual fisheries, and protection of fish habitat, largely in a marine environment.

As you are all well aware, Atlantic salmon are considered endangered by the Committee on the Status of Endangered Wildlife in Canada, with the inner Bay of Fundy population listed under the Species at Risk Act.

The work of the Ecology Action Centre on Atlantic salmon is very closely tied to our work on the impacts of open net-pen farmed salmon and trout, as well as our concerns regarding the approval of the production of genetically modified salmon, the first genetically modified animal approved for human consumption in the world. We are also concerned about the number of tidal barriers in Atlantic Canada that have further reduced available habitat for Atlantic salmon, particularly during spawning. Finally, we do not feel that the impacts of climate change have been adequately considered in terms of recovery of Atlantic salmon.

I will speak to the relative value of Atlantic salmon in Atlantic Canada, the threats to its protection/recovery, potential conflicts within the Canadian government, in hopes that this will lead you to take a leadership role in addressing the impediments to the recovery of wild salmon.

Economically, the recreational fishery in Atlantic Canada, which largely comprises salmon fishing in our rivers, is extremely important to our rural communities, as you will have heard from our colleagues from Miramichi. Using data available as of 2012—and we do intend to produce updated information in the coming months—it is clear that the recreational fishery for Atlantic Salmon is of significant economic value for Atlantic Canada. Data from Nova Scotia, Newfoundland, and New Brunswick indicate that the number of jobs per $1 million of revenue is the second highest for angling-related industries, just after jobs for shellfish harvesting. I've provided a table in my speaking notes, which you're all welcome to have a look at.

The economic spinoffs are important to consider as well, as not only are there direct jobs, but spending in rural communities, through accommodations and meals, is also important, particularly in areas like the Margaree River in Cape Breton and the Miramichi in New Brunswick. The jobs per $1 million, as of 2012, for the open net-pen salmon industry, by comparison, were about 5.6 per $1 million, which is one order of magnitude less than those in the recreational fishery, which was about 30 jobs per $1 million of revenue created out of the recreational fishery.

There were over 900,000 anglers in Atlantic Canada with direct expenditures in 2014 of almost $600 million, as per DFO's statistics. As such, Atlantic salmon stocks are significant to our regional economy, despite the fact that there is no commercial fishery. Failure to work proactively to achieve recovery of wild salmon jeopardizes this important contribution to Atlantic Canada's economy.

It is interesting to note that the open net-pen salmon farming industry was, at the outset, seen as a way to reduce pressure on the wild salmon populations. However, it is now understood that open net-pen salmon farming significantly reduces the health and population levels of wild Atlantic salmon through a variety of mechanisms, including disease transfer, sea lice, and competition with escapees as a few examples.

A very recent assessment of open net-pen farmed salmon in Atlantic Canada by the well-respected and widely referenced Monterey Bay Aquarium's Seafood Watch program resulted in Atlantic Canadian farmed salmon being ranked “red” or “avoid”, largely because of their ecological impacts, as well as their management. The reason for the “red” ranking is largely due to the level of escapees: almost 70% of Atlantic salmon in the Magaguadavic River in New Brunswick are escapees, while in State of Maine, which has much stricter regulations through its containment management protocol, only 0.2% of its river salmon originate from those farms. Escapees pose ecological and genetic threats to the historically low wild Atlantic salmon populations, which are listed as endangered in Canada and the United States. This same review found that Atlantic Canadian farms use 204 times and 241 times, respectively, more antibiotics than comparable farms in Norway and Scotland, and six times more than in farms in B.C. Finally, the rates of infectious salmon anemia are still present in the Canadian Atlantic salmon, and pose threats to wild salmon, and sea lice loads are higher than industry-authorized limits.

From a policy perspective, it's clear that the Government of Canada is often in conflict with itself. Efforts to protect and recover wild Atlantic salmon, including through recovery strategies and action plans developed under the Species at Risk Act and through wild Atlantic salmon policies, are often in conflict with government regulations and efforts to grow the open net-pen salmon farming industry, which, as stated above, has direct and detrimental impacts on wild salmon. There need to be much stricter regulations and mitigation of threats to wild salmon, and the Canadian government should address this conflict of the same department being responsible for the protection of Atlantic salmon and the promotion of one of the greatest threats to wild salmon. Here, I'll also note that countries such as Norway and Scotland have also wild Atlantic salmon populations in fisheries, and their open net-pen salmon farming industries are much better regulated.

● (1615)

An example of this conflict would be the illegal use of pesticides by salmon farms in Atlantic Canada in 2013, which resulted in a $500,000 fine. Under significant lobbying pressure from the aquaculture industry in 2015, the government promulgated the aquaculture activity regulations, which exempt the aquaculture industry from Fisheries Act provisions that prohibit the release of deleterious substances into water frequented by fish, even though that step was opposed by scientists, fishermen, and conservation groups. They did this by removing the responsibility to enforce section 36 of the Fisheries Act from Environment Canada, and handing it to the Department of Fisheries and Oceans, which also promotes open net-pen fish farming.

From an economic perspective, there's a critical need to review all subsidies to the open net-pen farming industry, including the Canadian Food Inspection Agency bailout as a result of ISA and other disease infections. Bailouts to the industry in the form of so-called compensation cost Canadian taxpayers $138 million as of March 2014. What if this funding had been provided instead to restoring Atlantic salmon population? This would give some sense of the scale of the subsidy.

There is also a need to conduct a national review of leasing costs. Currently in Nova Scotia, the area on which I have most knowledge, the leasing cost per hectare is $12.18. I can assure you that this is an excellent deal and includes waste removal by the ocean, oxygen provision, and space for salmon cages. There's no terrestrial farming equivalent that gets such a good deal from the natural environment. Given the impacts of this industry, there should at least be improved economic benefits for Canadians, as the companies are using a public resource to subsidize significant private profit. If there were higher costs for leasing, that money could be put back into wild salmon conservation.

I would also like to speak briefly to the approval of genetically modified salmon in Atlantic Canada, to salmon egg production in Prince Edward Island, and to the government's decision to waive data submission on this risk to wild Atlantic salmon from genetically modified salmon. There was no public consultation associated with this decision and no engagement with aboriginal communities. While this decision was taken by a previous government, there is a need to review the decision, the science used to make the decision, and the public engagement in this globally significant decision. Scientists have raised concerns about genetic disruption, where escaped GM salmon could mate with spawning salmon. While the risks may be low, we do not know that, because the data was not made public. Even if mating is unsuccessful, in the small runs with few returning fish, it can endanger the survival of the entire population by removing a chance for successful mating of a wild pair.

My organization, together with others, is in the process of a legal challenge under the Canadian Environmental Protection Act regarding this approval.

Finally, I want to stress the importance of ensuring that provinces are fully engaged in the protection of wild salmon—particularly as they are responsible for the permitting and regulation of aquaculture outside of British Columbia—that they fully understand the economic impact of wild Atlantic salmon, and that the impacts of climate change are considered in all recovery efforts. We know that Atlantic salmon can be restored to our rivers and that the State of Maine has achieved recovery of severely depleted populations as an example. It will require reducing known threats, protecting habitat, and a dedicated plan involving all stakeholders to reduce risks to wild salmon and improve their survivability.

Thank you for the opportunity to speak, and we appreciate the standing committee's interest in this important issue.

● (1620)

The Vice-Chair (Mr. Robert Sopuck): Thank you very much, Dr. Fuller.

We next have Mr. J.D. Irving, representing the Atlantic Salmon Federation as a director.

Mr. Irving, you have 10 minutes.

Mr. James D. Irving: Members of the Standing Committee on Fisheries and Oceans, thank you for the opportunity to be part of your discussions regarding the Atlantic salmon. As a New Brunswicker, this is a subject of great importance to our province.

[*Translation*]

I am happy to have the opportunity today to talk to you about the future of Atlantic salmon.

[*English*]

By way of background, JDI has been engaged in scientific research for over 30 years. To date, we have over 30 students who have received their masters and doctorate degrees with the support of our organization conducting research on our timberland. These projects involve a wide range of scientific disciplines, including migratory birds, rare plants, mosses, large mammals such as deer and moose, seagoing brook trout and, most importantly to this committee, Atlantic salmon.

Our company's annual investment in research averages about $1.5 million a year. We have attached for the committee's information an overview of our current forestry research efforts. That's been given to the clerk.

Regarding today's subject, wild Atlantic salmon, the stocks have been declining for the past 50 years and 30% of Canada's east coast salmon rivers are not meeting sustainable spawning levels. In the case of the Miramichi River, which you've heard is the benchmark river for Atlantic salmon in the east in many cases, it has been three years since sustainable spawning levels were achieved, and only once in the past 10 years on the northwest Miramichi, which is an important branch of the main Miramichi River.

A 2010 Gardner-Pinfold study confirmed that the economic value of the Atlantic Canadian recreational fishery would be $150 million per year. This equates to approximately 3,300 full-time jobs, and in New Brunswick the economic impact was assessed at $54 million per year. In recent years most Atlantic salmon research has been left to a variety of non-governmental organizations such as the Miramichi Salmon Association, the Atlantic Salmon Federation, and the Restigouche River Watershed Management Council.

While these groups have done an excellent job, critical funding for research initiatives continues to be a significant challenge. Driven by the lack of government involvement in the salmon crisis, the Collaboration for Atlantic Salmon Tomorrow, CAST, was conceived in the fall of 2014. This effort is a combination of industry, 18 scientists, as well as a number of ENGOs. We believe that CAST is the most comprehensive group ever assembled with the goal of saving wild Atlantic salmon. The partners in this venture include Atlantic Salmon Federation; Miramichi Salmon Association; Restigouche River Watershed Management Council; J.D. Irving Ltd.; Cooke Aquaculture; John Dillon, U.S. chairperson of the Atlantic Salmon Federation; Canadian Rivers Institute; University of New Brunswick; and New Brunswick Salmon Council, as well as input and consultation with the aboriginal community.

The CAST science team is the largest ever formed to research wild Atlantic salmon conservation. This group's focus on six innovative research themes will result in over 25 projects to be trialled primarily on the Miramichi River system. CAST and our research initiatives should serve as a model for other eastern Canadian rivers facing the challenge of wild Atlantic salmon recovery. These projects will be completed over the next five years, with a proposed total project cost of $13 million of government and private sector contributions.

Phase one is $7 million and phase two is estimated at this time to be about $6 million. To date non-government partners have invested over $1 million, and we are currently awaiting approval of federal funding—meaning ACOA and DFO funding—as well as funding from the Province of New Brunswick. That funding will amount to $2.4 million from ACOA, $1.5 million from DFO, and $2.3 million from the Province of New Brunswick..

The six projects will include the development of a population and habitat data warehouse for fishery managers that will allow a consolidated view of all the science that's going on, which has been scattered and not easily accessible; innovative technology in sonar fish counting, which will give us a much better and more accurate inventory of what is going on in the river's population; predator studies on striped bass and cormorants; ocean tracking of Atlantic salmon to determine the potential causes of at-sea mortality; and thermal imaging of freshwater rivers to enhance cold-water habitat, as we're hoping to address the potential climate change issues. .

● (1625)

Last is a short-term program capturing seaward-migrating smolt, rearing them to adults, and releasing them back into their native rivers to spawn naturally, thus bypassing the high mortality now being seen during their transition to salt water. We will be stocking between 4,500 and 5,000 large fish going directly to the river to spawn. If you were looking at the natural return for 5,000 smolts, high estuary and at-sea mortality would be less than 100 adult fish returning.

Some of the projects we are looking at are cutting edge. For instance, on our ocean tracking project, we are working with the Lockheed Martin Corporation to find an innovative and cost-effective way to track Atlantic salmon to Greenland. That may be one of the most important ones, because we need to know where the inventory is and what's happening to these fish at sea.

To date, we have received very good support from both the New Brunswick provincial government and ACOA. There has been, however, an ongoing struggle to have constructive engagement from the regional DFO staff for the Gulf region, and I want to emphasize this. My comments are directed to that organization because I'm not familiar with other parts of the DFO organization.

This is particularly in regard to the Gulf region. They have been invited to attend numerous meetings over the past 18 months, but they have declined for one reason or another. This lack of engagement is not productive given that DFO is the ultimate authority on research approvals. We cannot afford to wait until the Atlantic salmon of the entire east coast are listed under the Species at Risk Act before we take action. A proactive approach is required.

It appears that the current federal strategy is to repopulate the river after the salmon population has disappeared, as has happened in many maritime rivers, rather than to study other approaches that might help. For example, CAST supports understanding the impact of raising wild salmon from local rivers to help repopulate the river, not as a permanent solution, but as a temporary one to increase the population.

In my view, what has brought CAST together to address the crisis facing wild Atlantic salmon is a shared sense of purpose, a vision for the future, and a willingness to act with urgency, based on good science. Our CAST partners have already devoted significant time, money, and other resources to ensure this initiative propels positive change in Atlantic salmon populations.

We applaud Minister Tootoo's recent announcement of $197 million towards freshwater and marine fisheries research. We are looking forward to seeing the details on the Atlantic salmon portion of this funding.

In conclusion, I'd like to make the following recommendations.

First, we need DFO Gulf region's immediate engagement at a local level, with a clear sense of purpose and urgency. This is a crisis. DFO will find a multitude of willing partners ready to engage on this effort.

Second, we need public accountability for DFO and all other parties who receive federal funding, highlighting clear, measurable objectives, with annual reporting on progress and executive summaries in layman's terms to engage all stakeholders, and a sustainability report on research results. This should not be done in silos. Performance reports should be consolidated by one party—maybe an accounting firm—to document and share the best ideas and avoid duplication of work and funding.

Third, in 1966 and 1967, recreational salmon anglers caught over 60,000 wild Atlantic salmon, and commercial fishermen harvested an additional 65,000 salmon from the Miramichi watershed. We recommend that DFO have an objective above the minimum population levels of Atlantic wild salmon. Today, the target is 23,000 large salmon and 23,000 grilse. Our CAST objective is to reach for a higher target and restore salmon populations to healthy, sustainable levels well above the minimum threshold to support a vibrant recreational fishery.

Thank you for this opportunity to address the standing committee on wild Atlantic salmon. Collectively, our efforts, with DFO leadership, will make a difference.

Thank you.

● (1630)

The Vice-Chair (Mr. Robert Sopuck): I would like to thank our presenters for their discipline with the time available. We'll be able to get in some very good questions.

Given our late start, we'll have about 45 minutes of questions, because we have some committee business after that.

Mr. Finnigan from the Liberal Party, you have seven minutes.

Mr. Pat Finnigan (Miramichi—Grand Lake, Lib.): Thank you, Mr. Chair, and thank you to the witnesses today. Some of them I know quite well.

My first question will be for Mr. Doak. As we said, time is short.

Mr. Doak, I have met you before. I know you are, I was going to say, “an encyclopedia”, but a Google of salmon, and you can talk for a long time. I know you know the fish quite well. Please give a short answer, if you can.

Again, I want to thank you for taking the time. I know that salmon season has started, and you are probably busy at your shop.

Mr. Doak, as an outfitter, it is obvious that your business depends on people fishing salmon on the Miramichi. Last year was the first year when it was all catch-and-release for recreational fishing on the Miramichi. Could you tell us if that decision had a direct negative effect on your business in 2015?

If the numbers were to drop to a level where absolutely no fishing were to take place, your business would basically shut down. Would you say that preservation measures that we have today are still worthwhile and very important at this stage?

Mr. Jerry Doak: First of all, I can't give you a specific answer on how much of a loss there was. We had a fairly stable year last year, relative to 2014. Our business is fairly diverse in that we do mail order on a variety of things, such as fishing tackle, to people who fish all over eastern Canada. There are a variety of factors there.

The one thing that I would say I noticed was certainly the costs that we sustained as a result of the double hook regulation. If you are asking me whether or not a total closure would be more costly than the current levels of restrictions, then yes.

However, the cost that I am concerned about here is not so much an economic one for the business. I am concerned about the cost to the river. As Mr. Hambrook pointed out earlier, when you lose or disengage any component of the fishery, the river suffers. It suffers the astute awareness; it suffers the involvement. This is the loss that is more serious.

If truth be known, the local fishery, the local resident component, is a very small part of my business, because they are such good fishermen that they really don't need exotic fishing equipment. Therefore, as a purveyor of fishing tackle...it creates the illusion of being productive. Many of these fishermen are so good they don't really need expensive stuff. Our business is derived from a broader base of the fishery, which is less affected by this.

My concern is more one as a Miramichier: the loss of contact, the loss of local involvement, the people I see as I move about the community who look at me and say, “We are simply not fishing; we are not going to do it.” Particularly, one of the things that struck me —and I am trying to be brief—is that a number of women have come up to me and said, “I want you to know how much my husband misses fishing this year, and how concerned I am about the fact that the one thing he used to do for relaxation, after coming home from a hard day's work in the woods or at the mill or wherever it might be... he can't do that anymore. He refuses to do that because the fun has been taken out of it for him.” It is not that people want to harvest a lot of meat; they simply want the option of making a free choice when they go to the river, without having it taken away from them.

The whole nature of that approach to the fishery has changed. That change is more a socio-economic and cultural thing than strictly an economic aspect.

Mr. Pat Finnigan: Thank you, Mr. Doak.

My next question is for Mr. Hambrook. I had the privilege to visit the hatchery he manages. It is a historical hatchery that has probably returned millions of smolts or salmon back to the river.

Mr. Hambrook, what are your views on the CAST project that Mr. Irving alluded to a little while ago—and I think you did as well—to capture 5,000 smolt this spring and raise them in an enclosed system to release them later, when they will stand a much better chance to survive?

Mr. Mark Hambrook: As a hatchery manager with DFO, and now responsible for the hatchery for the Miramichi Salmon Association.... Our view on that hatchery was that it was our insurance policy. If something went wrong, we had a tool in our tool box to do something to help.

It was very clear, with the problems in the Bay of Fundy, that the traditional hatchery methods did not work. As the population shrinks, you can't go out and collect the brood stock and spawn them, because there are no brood stock anymore. What had to happen there, through Mactaquac and other hatcheries that DFO still had access to, was that they had to do gene-banking. There are very few fish left, when you get the little ones and grow them up to be adults, to get your eggs for stocking.

We need to move forward into newer technology, similar to what that was. Before we get to that point, we have to work out the technique to make this work when there are still fish left. It is innovative, and I hope we don't have to use it. I hope that the runs come back, but we need to solve this technology, which will work not only for us but around the Atlantic salmon world, to be able to restore fish stocks.

● (1635)

Mr. Pat Finnigan: Mr. Irving, thank you for again taking the time to appear at this committee and for the tremendous resource you've made available for the preservation of Atlantic salmon.

We know, Mr. Irving, that salmon protection goes beyond the banks of the river, but also deep inland with the protection of cold springs, for example, and runoff and erosion washing back into the river.

Could you tell us what proactive measures your company is doing to protect the waters of the river on your woodland forestry operation? Thank you.

Mr. James D. Irving: Very briefly, we're the ones who initiated the temperature scanning of the river. We had the attachment, we brought it in, put it on our helicopter, and went up and down the river to try to understand what was going on. We get it. We must have cold water all the way up in the watershed, in the tributaries of the river. We worked for a long time, in conjunction with the Department of Natural Resources in New Brunswick, on shade, how close to the brook, how far you harvest trees in the brook, sedimentation, and all those things. We've been proactive at that for a long time, but we think there are bigger opportunities the more we learn. We've got new technology now with LIDAR, which is a very sophisticated technology about topography, and now we're pioneering with underwater LIDAR, on all the underwater snags.

We have a number of things that we can work on, but I would say that we're as sophisticated or as advanced as anybody in the country. We're doing it right here in New Brunswick with New Brunswickers, in partnership with the University of New Brunswick, which is coming up with these things. We think we're being proactive, but can we improve? We're always open to improving and finding better ways, absolutely.

The Vice-Chair (Mr. Robert Sopuck): The time is up for this round.

Mr. Arnold, for seven minutes.

Mr. Mel Arnold (North Okanagan—Shuswap, CPC): I'd like to thank all participants for their patience today when we were late arriving.

The first question is for Mr. Doak. I'm curious as to whether you see a change in demographics on the river with the retention versus non-retention types of fisheries, for example, resident versus non-resident, the age of the anglers, and so on. The follow-up question to that is, do you think this is having an effect on the local interest in the river?

Mr. Jerry Doak: Yes, it's certainly having an impact on the local involvement on the river. There's no question about that. We're seeing a bit of a change. It would probably be skewed a little bit more to a non-resident fishery—not simply a non-resident, as in south of the border, but non-resident as in people who tend to come from the cities, other parts of the province and other parts of the Maritimes to fish.

The reality is that nobody really wants to take a fish home with them if they're travelling any more than a few minutes from the river. The retention fishery is of great value to the local person, not because it is a piece of meat, but because it's attached to his bloodstream, as it were, to what goes on in his backyard, to that sort of special kind of connection that we have to nature. It's that part that is most eroded by this.

There are people who come from outside the river system who do want to retain a fish for a variety of reasons. Many of them are still willing to come, but it's that local component, the ones who live right within earshot of the river or within casting distance, those are the ones who are perhaps most concerned about this. We've lost that contact. We've lost that lore. We've lost that connection to the history. As a result of that, to some extent we lose the ability to understand the complexities of the river from a local perspective, and that is of great concern.

Mr. Mel Arnold: Mr. Hambrook, you mentioned that there's opposition to using rotenone to control the bass population. I understand there are some concerns over the downstream barrier that is in place to, hopefully, keep those bass contained in the lake.

Can you expand a little bit more on the opposition to rotenone, and do you know where that opposition is coming from and the reasoning behind it?

● (1640)

Mr. Mark Hambrook: Well, I guess when smallmouth bass were discovered in Miramichi Lake, we quickly went to work to come up with a plan to eradicate. I sort of led that charge on behalf of the non-profit groups, and consulted experts across North America. We did make contact with the "guru", if you could call him that, on rotenone. He's a guy who worked for the State of California. He reviewed the whole Miramichi Lake situation and came up with a plan and a cost to do it.

When we presented this to DFO, I guess they discovered at that point in time that it was illegal to do it, because the regulations were not there. We pushed things to see if we could get changes to the Fisheries Act, which is not an easy task, of course. In the meantime, control measures were put in to prevent the spread.

Basically, DFO came back to us and said they had a three-year eradication plan and they would totally get rid of the smallmouth bass in the lake. Our response was that it was impossible: we'd consulted with every expert, and there was no way it could happen. But DFO said they would do it in three years. That was five years ago. They're still on Miramichi Lake trying to control that smallmouth bass population.

We understand that the act has passed in Parliament, but now it's about writing up the regulations. We've been told by the Gulf region to forget it, because it's never going to happen; we'll never get to use rotenone on that lake.

Mr. Mel Arnold: I find that interesting. I come from the Shuswap area in central B.C., and we had nine small lakes where bass, perch, and sunfish had been introduced illegally. Our fish and game clubs were the drivers behind getting those lakes eradicated. The bounceback in those lakes was phenomenal. Within six months of the eradication of the invasive species, the trout that was stocked into those lakes was growing in number incredibly.

I believe we treated eight or nine of those lakes with rotenone, so I'm surprised to hear that it's been declared illegal; obviously not.

Mr. Mark Hambrook: Just as a follow-up to that, we pointed out the B.C. example. Our understanding was that even though there was no clear regulation, if you don't say anything, I won't say anything, and it'll all happen.

But we couldn't get that on the east coast. You're much more advanced than we are.

Voices: Oh, oh!

Mr. Mel Arnold: How much time do I have left, Chair?

The Vice-Chair (Mr. Robert Sopuck): You have one and a half minutes.

Mr. Mel Arnold: Thank you.

We've heard something about smolt survival rates and so on. Are you aware of any programs or pilot projects that have possibly looked at smolt-rearing in the ocean, in the estuaries? I know there are cases on Vancouver Island and definitely on the west coast where they have done some preliminary studies. Have there been any studies to that effect on the east coast?

This question could be for anyone in the group.

Mr. Mark Hambrook: I could answer that.

Yes, there has been a number of projects. There's one on the Conne River in Newfoundland, where they captured wild smolts, put them in a cage in the bay, and reared them up to adults. It's a well-known technology. The aquaculture industry does it every day.

In the Bay of Fundy, this is the other way they're bringing back their salmon: they're catching wild smolts on those small Bay of Fundy rivers, putting them in sea cages, and growing them up to be adults. That works, because in the Bay of Fundy, and of course on the coast of Newfoundland, the waters are warm enough that you can run a cage there year-round. For the Miramichi, our salt water gets too cold in the winter. Salmon won't survive. If we want to do it, we have to do it in land-based facilities.

● (1645)

The Vice-Chair (Mr. Robert Sopuck): That's seven minutes.

Mr. Donnelly, you have seven minutes.

Mr. Fin Donnelly (Port Moody—Coquitlam, NDP): Thank you to all our witnesses for being here on this important subject.

Dr. Fuller, you referenced the impacts of aquaculture on wild Atlantic salmon. I want to start by asking you what you believe would be an effective solution to that concern.

Ms. Susanna Fuller: I think one of the most effective solutions would be to ensure that there's not siting of open net-pen farms within a scientifically determined distance from salmon-bearing rivers. There's been some research on that. There's a paper by Ford et al. from about six years ago that points out that, around the world, when you put open net-pen salmon farms next to salmon-bearing rivers, you get a 50% additional mortality rate.

I think siting and designing where we put the farms is extremely important in ensuring that they are not within a distance that can actually impact wild salmon returns. I think it's important to ensure that we are addressing the sea lice issue to make sure there's less density in the farms so that you don't have a complete outbreak of sea lice. Controlling and reporting on disease is very important. I think there needs to be an incredible lot more transparency in the open net-pen farming industry so that we can actually figure out how to address the cumulative impacts on wild salmon.

Again, I go back to siting as the key one. We really just cannot put the farms next to salmon-bearing rivers. I think there needs to be some science, and maybe the reinvestment by DFO in salmon could help determine how far that distance should be.

Those would be my key recommendations.

Mr. Fin Donnelly: Does your organization have a position on closed containment?

Ms. Susanna Fuller: We do. We support closed containment for a number of reasons. One is that it means that the externalities to the marine environment writ large are eliminated. The closed containment industry has to, in their business model, pay for all the externalities.

Also, there's been some very successful closed containment both on the west coast and the east coast. I would note that a lot of hatcheries are more or less closed containment, and growing out of the smolts happens in more or less closed containment.

The biggest issue for us is the impacts on the environment. They come for free. I think very few other agricultural or farming industries get those kinds of services for free and have to pay so little. I think $12.18 a hectare is an embarrassment. Really, in terms of the municipalities who should be able to gain from those industries, I think that if we're going to have open net-pen fish farming, the externalities have to be paid for, and that's not happening right now.

Mr. Fin Donnelly: In terms of DFO's management plan for wild Atlantic salmon, would you say it's working. If not, what are the two top actions you would recommend the department take?

Ms. Susanna Fuller: I am less familiar with the in-river management plan. I think the other witnesses speaking here today are much more familiar with that, because our organization is not an angling or a restoration organization.

I would say, from my experience, that sometimes the elephant in the room does not get dealt with—and that elephant would be the aquaculture industry. I think we often think that if we improve river habitat.... We still have this unknown that is at-sea mortality, which I do not think we've adequately addressed. I think some of the tagging studies are really good. I think looking at the take in the Greenland salmon commercial fisheries is important.

However, I'd say that we have turned a bit of a blind eye to the impacts of the farmed salmon industry and its improper and irresponsible regulation in Atlantic Canada, particularly compared to other salmon-farming countries such as Norway and Scotland that really make an effort to keep their farms away from salmon-bearing rivers. They still have problems, but we have a long way to go in regulating the open net-pen farming industry so that we at least can understand and decide on the risks that we are willing to take for Atlantic salmon.

Mr. Fin Donnelly: Mr. Irving, you mentioned that critical funding to save the wild Atlantic salmon is still needed, and you mentioned that we're in a crisis in this regard. Could I get your comments about the DFO management plan, if you think it's working, and one or two top actions you would recommend the department take?

Mr. James D. Irving: I preface my remarks based on what we're doing here with the Gulf region, because I don't want to be overcritical of DFO, since I don't have the experience. Also, I haven't been active on that side of it with DFO.

In the last 18 months I've been active, along with the rest of the CAST executive, trying to get things done, and it's been terrible. This is an organization that's funded with federal tax dollars, and I see what we've gone through trying to make something happen. It's not right. We need to be much more progressive.

The federal minister just announced another almost $200 million in funding. That's great, but we should not squander the money. We'd better be held to account. DFO should be held to account with measurable outcomes every year, and not just answer a question with another question and go on a circular discussion. We've better [*Technical difficulty—Editor*] and we know that, and the Province of New Brunswick particularly. We should be very proactive.

We need a different type of thinking, as far as I'm concerned. I'm being candid with you. I don't want to be unduly hard on the DFO, but I can tell you that locally—whether it's mid level or what level is in charge, I don't know—we're not forward thinking. We're not working with a goal and an objective. We need to have a sense of purpose. I can't emphasize that enough with you.

● (1650)

Mr. Fin Donnelly: Great. Thank you very much, Mr. Irving.

Mr. Hambrook, you talked about stocking the river with hatchery salmon, and you mentioned striped bass and grey seals' predation. I wonder if you would apply your recommendation to deal with these issues to different river basins across the country.

Mr. Mark Hambrook: My recommendation is that we'd like to see our ecosystem in balance. It's nice to let things go natural, but man has interfered so much that we have to try to maintain that balance. When the number of striped bass has gone from 2,000 to over 300,000 in a decade, that's changing the ecosystem.

We see grey seals that have gone from a few thousand to several hundred thousand in the Gulf of St. Lawrence. It's well reported by DFO that the seals are impeding the recovery of the cod stocks and other groundfish. It's out of balance.

We need to get a balance.

The Vice-Chair (Mr. Robert Sopuck): I'm afraid the time is up. Thank you very much, Mr. Hambrook.

Ms. Jordan, for seven minutes.

Mrs. Bernadette Jordan (South Shore—St. Margarets, Lib.): I have a number of questions. I'm going to start with Mr. Doak.

The 2015 ministerial advisory report on Atlantic salmon stressed that there was a lot of illegal fishing and poaching of Atlantic salmon in Canada. Can you tell me some of the things that have been done in your region to try to mitigate those problems?

Mr. Jerry Doak: I'm not aware of a great deal of specific effort to that end, other than routine patrols—and there's probably fewer of those than there used to be. There's quite a bit of concern about the decline in enforcement personnel at a time when, I would contend, frivolous regulations are being imposed and enforcement personnel are being asked to enforce them. There is perhaps a depletion of the concentrated enforcement effort on the real issue, which would be the interception of large egg-bearing female salmon.

I think that as a result of the measures that were taken last year, out of every 20 people who were driven off the river in frustration, probably one of them took out their frustration by perhaps taking home a fish they otherwise would not have taken. That concerns me because so much of management involves considering the people and what's going to be supported on a compliance basis. When people have a complaint, they're not always complying, and a lot of that has to with where you move the letter “i” around in those two words.

We don't do ourselves any favours when we enact a regulation simply because we can, without thinking about the impact it's going to have. I don't have specifics on the amount of poaching, but I do know there were rumours last year that there were more large salmon lost to poaching than would otherwise have been the case. That is a concern.

Mrs. Bernadette Jordan: Mr. Hambrook, you had mentioned that your salmon association spend $1 million annually. Is that correct?

Mr. Mark Hambrook: That is correct.

Mrs. Bernadette Jordan: What do you spend that money on?

Is it on the hatchery and what else? Can you expand on that a little bit more?

Mr. Mark Hambrook: We have a host of field programs. Over the past number of a years, we've been doing an inventory on the number of smolts migrating to the ocean. We put traps in and count those. We remove beaver dams in the fall to allow salmon to access prime tributaries. We do an electrofishing program with Fisheries and Oceans, where these index sites are done on an annual basis, as they have been for the last 50 years. We provide the bulk of the manpower to do that. We're involved in cold water pool restoration work. We helped DFO in the adult assessment by tagging fish and participating in the mark and recapture for assessments.

With our facility, our hatchery, we host a lot of research students; we provide fish for studies; and we do a number of things in that regard.

Mrs. Bernadette Jordan: Are you involved at all with the CAST program?

Mr. Mark Hambrook: Yes, I am.

● (1655)

Mrs. Bernadette Jordan: The association is?

Mr. Mark Hambrook: That's right.

Mrs. Bernadette Jordan: Mr. Irving, I'm going to ask a bit more about the CAST program. When we heard from DFO, the last time they were here, they had some concerns that the fish released by the CAST program may not be strong enough to make it to the sea and back. Is that something you see as a concern?

Mr. James D. Irving: I'm not technically competent to tell you about that, but I can tell you that we have 18 scientists—probably more scientists working on this than DFO does on salmon. I could be corrected, but I think that's about right. They work actively on the east coast. We have gone out to get the best geneticist from Quebec, one of the most renowned geneticists in the east. We offered to take DFO.... We said, “Come and meet these guys. Let's get them down.” We sent our airplane. They hauled fellows up to Quebec city and we hauled a bunch to Lockheed Martin in Virginia, trying to get people engaged.

We have to get the DFO folks engaged on this. Why it is so frustrating? This is not territorial. We don't know what to do with this. They are the executives; we get that, but when you're in charge you have to lead. If you don't lead you go in a circle, which is where we are today.

I can't tell you the exact business about genetics. There is some confusion about that, but there is no question that it can be done. When the river's dead, we'll go out and raise fish in captivity. We'll put them in the river, and they'll come from this source, and so on and so forth. It is quite easily done when the river's dead, but the time to give the patient the medicine is when he's alive, not when he's dead, as far as I'm concerned.

I know I'm being quite candid with you, but please understand that you have to have a sense of urgency.

Mrs. Bernadette Jordan: I agree with you. We had someone tell us that there have been 23,000 studies done on the decline in Atlantic salmon, so it's time that we actually did something with regard to those studies.

The other question I had was with regard to—

Mr. James D. Irving: Excuse me, if you don't mind my interrupting you for just a second. On your point about the studies, I've asked one of our auditing firms to do an audit on how much money has been spent on the Atlantic salmon in the last 20 years, what we have, how many studies were done, and what the quantifiable results are. I hope we can get support from this committee. We've engaged Ernst & Young to do a study for us, and it would be great if this committee would recommend it. I'm sure we should have good cooperation, but we'd like to do it in a constructive manner. This is not about “gotcha!” This is about knowing where we are, what we've done, and where we need to get to.

Mrs. Bernadette Jordan: One of the things I'm hearing a lot is that we do need more DFO engagement. I'm hearing that from all of the people on the panel.

We've had these studies done in the past. The advisory committee did one just last year.

Is there low-hanging fruit, something we could do quickly and easily that might help? We've hired 135 new scientists in DFO. I'm hoping a lot of them will be able to work with you on the Atlantic salmon, but are there any other things you see that could be addressed quickly that we can help with?

Mr. James D. Irving: Yes. It goes back to the question of leadership. Somebody has to give the directive and say, “Fellows, get to work. We want results. We don't want to hear from groups like CAST about all the problems.”

To get the smolts that Mark is collecting in his hatchery right now, it took a major political effort to finally get some movement. It shouldn't be that way. It shouldn't be that tough. We're the volunteers trying to make a go.

Mrs. Bernadette Jordan: Thank you.

The Vice-Chair (Mr. Robert Sopuck): Mr. Strahl, you have five minutes.

Mr. Mark Strahl (Chilliwack—Hope, CPC): I want to talk a bit about something that was mentioned in a couple of presentations. Mr. Doak summed it up nicely when he said that when a bully steals your lunch, you don't stop taking your lunch. Mr. Irving also mentioned finding innovative and cost-effective ways to track Atlantic salmon to Greenland. That's kind of what I want to talk about.

What I'm hearing is that the Miramichi Salmon Association, the Atlantic Salmon Federation, and individuals and interested groups like Mr. Doak's can improve habitat, can study this, and can come up with all sorts of strategies, but that right now there is an issue. We can spend money in Canada and the government can make strategic investments and set up programs to help Atlantic salmon stocks recover, but meanwhile Greenland, which is producing very few salmon, is taking advantage of that work and over-harvesting some of our most valuable large salmon. That pattern is simply unsustainable.

Certainly Conservative members of this committee have called on the Government of Canada to take whatever action it can, using whatever tools at its disposal, including economic or diplomatic pressure, to force Greenland to become a good partner with us. Right now it seems that they are taking the fruits of our labours here in Canada for their own economic benefit.

Perhaps we'll start with Mr. Hambrook and Mr. Doak. Could you comment on the issue of Greenland over-fishing and on what tools you think the Government of Canada should be using to address that issue?

● (1700)

Mr. Jerry Doak: I'm not really qualified to tell you what tools they should be using, but I would say to look at what they're doing now and do something different, because it's not working.

What concerns me about Greenland is, first of all, that it's an opportunistic fishery, as you mentioned. They don't produce many fish, if any at all. They are taking the lion's share of eastern Canadian fish, and even some from eastern United States as well. It's a fishery that goes back to the 1950s. It's not rooted in aboriginal tradition. It's a crime of opportunity. It is a crime: it's an international hostage issue, essentially.

I think we've been a little too cautious. I read some of the things that come out of the organizations. I can find you quote after quote of our key conservation leaders saying, “We can understand Greenland because, after all, we're still killing fish in Atlantic Canada and we've got to stop killing fish in Atlantic Canada, and then Greenland will see what a good example we set, and they'll stop killing too.”

I don't think that's going to work. I think you have a bullying situation here. I think we've been spending so much time giving ammunition to the Greenland fishery, they're turning our own words against us. The reality is that the fish that we were taking in Atlantic Canada, before we gave it all up or were scapegoated, were [*Inaudible—Editor*], which don't go to Greenland. By everybody's estimation, they are far more inconsequential to the long-term health of the resource. But Greenland is taking those fish, those prime maiden female fish.

Something has to be done about that. I would say to call upon the Americans as well, because there's very good evidence to suggest that it was actually the U.S. submarines under the ice that found the feeding grounds of the salmon in the 1950s, and then announced to the Greenlanders that there was a lot of salmon feeding off their coast. Greenland, of course, took advantage of that. I think there's an onus upon the U.S., too. I've not heard a lot of calls for that. I do get a lot of advice from Americans telling us how we should fix it and all the sacrifices we should make. I would say, maybe they might step up as well.

Mr. Mark Strahl: Okay. Thank you.

Today is Seal Day on the Hill. We're celebrating the sealing industry in Canada. Of those 23,000 studies that were mentioned, I don't know how many of them have been on the issue of seal management. Can I just get a yes or no to the following question, because I'm out of time?

Do you support a grey seal cull as part of the management of the predators of Atlantic salmon?

The Vice-Chair (Mr. Robert Sopuck): Very short answers, please.

A voice: Yes.

Mr. James D. Irving: I support a grey seal harvest, not a cull. I think we have to do everything in a sustainable way.

Mr. Mark Hambrook: A good point.

The Vice-Chair (Mr. Robert Sopuck): Does anybody else want to weigh in?

● (1705)

Mr. James D. Irving: I just have one comment very briefly on the question about what we can do about Greenland. I really believe we need to use technology to track where the inventory goes. We have to find a cheap way to track salmon on a larger scale. Then if we know where the salmon are going, where they are disappearing, we're going to know a whole lot more about things. I researched this.

The Vice-Chair (Mr. Robert Sopuck): I'm afraid the time is up. Thank you very much.

Mr. Morrissey, for five minutes.

Mr. Robert Morrissey (Egmont, Lib.): I want to go back. In the presentations here today, you're putting a lot of stock on capturing seaward migrating smolt and raising those. We heard on the first day the most senior DFO officials being lukewarm or cautious on that approach. They didn't attach a lot to it.

My question is, what have they got wrong?

Mr. James D. Irving: I'd like to take a shot at that.

I haven't heard any original thinking. Nobody is coming out and saying, “Okay, we can't do that but we should do this.” We get the negative side of the story. If somebody has a better idea, hallelujah, speak up. Don't keeping saying no, no, no. We know where we are today.

Mr. Robert Morrissey: I'd like to hear from Mr. Hambrook, because they were not supportive. They said that this practice that you're doing may lead to more problems than it's going to solve.

Mr. Mark Hambrook: Well, I guess that's a matter of opinion. We talked to the geneticists about this issue. We need to do something. This one makes the most logical sense. If the fish are not as fit as they should be through this practice, they'll be eaten and gone. We don't see the threat. It's not the answer; I clearly understand that this is not the way out of the crisis facing Atlantic salmon, but it is a way of filling the gaps until we do get the answers. We need to explore this technology fully and fully understand the consequences of it.

Mr. Robert Morrissey: Since the mid-1990s the salmon stock has dropped dramatically and basically has flatlined over that period, and we're now in 2016. My question is a general one. Given all the expertise and all the money that has been thrown at the problem, who has failed the salmon industry?

Mr. Mark Hambrook: That's a good question. I could take a stab at that.

Mr. Robert Morrissey: I'm just curious to hear your opinion.

Mr. Mark Hambrook: I have to agree with Jerry—though we don't always agree, but are good friends—that the anglers have not had a major impact on the stocks. They're angling grilse, mostly males. That hasn't been a major influence. What has happened is that either through the marine environment...we're not producing the fish. Everyone agrees that the big issue is mortality at sea. We don't understand exactly what that mortality is, but we can identify items such as a huge grey seal population. In the case of the Miramichi, which is being hit a little bit harder than some of the others, we have a big striped bass population. Perhaps it's a food issue. We need that international work and, of course, internationalism is the job of our federal government, in reality. If things are happening in our river, we're going to take a lot of responsibility to see that something gets addressed within our watershed. But when it gets to international waters, we're out of our realm. We need the federal government to lead that charge internationally. I think that's where the responsibility lies.

Mr. James D. Irving: I would add to that, as we said, that we've done a lot of research; a lot of money has been spent over the years and we don't seem to be any further ahead. Everything appears to me to be in silos. We need a bit more comprehensive leadership at the top level in trying to pull these things together, because we seem to go around and around in a circle. It's discouraging to think that DFO thinks that getting the smolts is not a very strong solution. The smolts are going to stay in a tank for 18 months. We said, look, put them in a tank for 18 months; get the best genetics in the world; we're going to host a symposium with the best genetics people we can find this year or later this year. Come to New Brunswick; have it out with the best genetics guys or women in the world and if they come to the conclusion in a year from now that the fish should not be released, let's process them and give them to a food bank or the aboriginal community. But we do have to try, and we have to come out in the spirit that we're going to win, and not just say no.

● (1710)

The Vice-Chair (Mr. Robert Sopuck): You have eight seconds.

Mr. Robert Morrissey: I will let it go. You were diplomatic in your response, but nobody belled the cat.

Voices: Oh, oh!

The Vice-Chair (Mr. Robert Sopuck): With that metaphor, we go to Mr. Arnold for five minutes.

Mr. Mel Arnold: Thank you, Mr. Chair. I'll split my five minutes with Mr. Strahl.

My question will be fairly short, but I want to pose it to each of you. I think we've already heard the answer from some of you, but I'd like to hear from each of you. What would you like to see remediation work focus on going forward? Should it be it on the rivers or on the marine environment?

Mr. Mark Hambrook: I'll take the first shot at that if you like.

We know that the issue is in the estuaries in the marine environment. That's where the direction has to occur, but every river has something that needs to be done in fresh water. We'll continue to work away at that, but the new effort needs to be in the estuary and marine environment.

Mr. Jerry Doak: I would completely agree. Threats in the estuary are a problem. I think the striped bass can't continue to be overlooked. The origins of that go back to the mid-1990s. That may be a factor to explain. It's such an immediate, heavy concentration. Your heard Mr. Taylor say last week that during the escapement of smolt from the Miramichi out to the outer part of the estuary and into the open ocean, only 25% survive, whereas from the Grand Cascapedia, 60% of the smolt survived. It doesn't take a genius to figure that out. We have something going on in that estuary and that needs to be dealt with. There's a perfect opportunity there to do some brokering and to get a commercial fishery open. The value of striped bass is higher than the value of commercial salmon and yet it's being protected. It's a sacred cow. It's a problem.

Mr. Mel Arnold: Are there any comments from the other two?

Mr. James D. Irving: Things we can do on the river, no question, will sensitize us to certain things. But the big thing is that we have to find a way to track the inventory, with a cheap, economical, scientifically correct way. It's like everything else in life. When you're in business, when you know the inventory, you know what's going to happen to your prices, you know what's going to happen to the supply and demand. This thing here is about tracking the inventory very effectively and efficiently. That's the critical piece to me. Then when we go after Greenland, or fight whatever fight we have to fight, we'll have some [*Technical difficulty—Editor*], not talk.

Mr. Mel Arnold: Finally, Ms. Fuller.

Ms. Susanna Fuller: Hello.

Mr. Mel Arnold: The question was, where would you like to see the focus of remediation work going forward?

Ms. Susanna Fuller: One of things that I think is very important, which may vary on a river-by-river basis, is to at least have an estimate of the relative mortalities from different things that we know impact wild Atlantic salmon.

In the Miramichi, the striped bass may be the issue. In other rivers there might be other issues. We can't look at this as one thing. The thing with Atlantic salmon is that it's not one thing; it's more death by a thousand cuts. We need an understanding of the relative mortality that we might be seeing as a result of different things.

We can estimate the mortality from the Greenland south fishery, for example. We can estimate relative mortality from striped bass in certain watersheds. We can probably estimate the relative mortality, and there are estimates out there for wild Atlantic salmon, as a result of the impacts of farmed salmon. I think that would be quite a useful thing. This may already have been done, but it would be quite useful because it would allow us to understand, if we are going to reduce mortality—which is what we need to do to recover the population—where the efforts need to be focused.

The Vice-Chair (Mr. Robert Sopuck): Thank you for that.

We'll go to Mr. Strahl for a minute and a half.

Mr. Mark Strahl: Ms. Fuller, it's good to see you back. I had my question lined up for you and you disappeared for a second.

Ms. Susanna Fuller: Sorry about that. I didn't know what happened.

Mr. Mark Strahl: No problem.

One of the recommendations of the Cohen commission was to separate the promotion of aquaculture products from DFO. They have a bit of a conflict of interest where they're promoting aquaculture and also regulating it. We're supposed to see the minister respond to that in a comprehensive way in the next few weeks, so I guess we'll all stay tuned to see if that will be addressed.

If you're calling for a ban on net-pen aquaculture, is that immediate or a phase-out? What is the proposed timeline there, because we are talking about an industry that does provide a lot of employment opportunities in the region as well?

● (1715)

The Vice-Chair (Mr. Robert Sopuck): Be very quickly, please.

Ms. Susanna Fuller: I will clarify that I did not say there should be a ban. I said that we need to really figure out the risks of the marine environment to wild Atlantic salmon. We need to adequately regulate and mitigate those risks and avoid them wherever possible, and we really need to look at much better regulatory systems nationwide for farmed salmon.

We do not stand up to world-class regulations right now. I happen to know that because I've gone through a process in Nova Scotia where there was an independent regulatory review panel that came out with excellent recommendations. It's called the Doelle-Lahey panel. I would recommend that the federal government look at that as a basis for how we could regulate open net-pen salmon farming in a much better way.

Fully understanding the impacts on wild salmon is very, very important, both on the west coast and the east coast. If we think we're going to be successful in recovering wild salmon populations, we cannot ignore the impacts of farmed salmon.

The Vice-Chair (Mr. Robert Sopuck): I must reluctantly bring this discussion to a close. Our time is up.

I'd like to thank our presenters for extremely interesting, professional, accurate, and timely presentations. They're greatly appreciated by the committee. It was all I could do to stop myself from asking questions. With luck, I won't be in the chair next time. Nevertheless, I very much enjoyed my time in the chair today.

Again, thank you so much for your presentations.

We will now go in camera for committee business, so we will suspend for a minute or so.

Ms. Susanna Fuller: Thank you.

Mr. James D. Irving: Thank you.

[*Proceedings continue in camera*]