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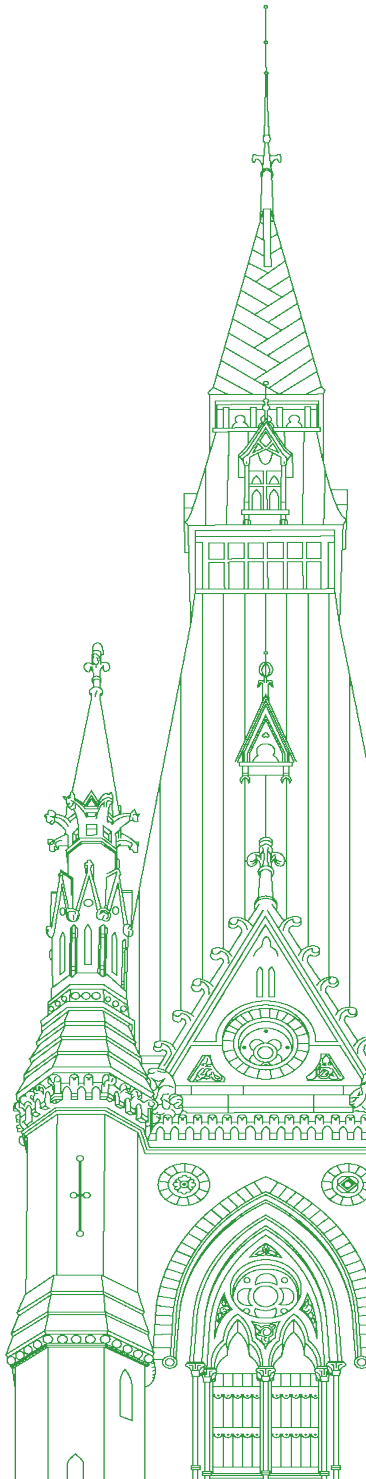

Chair: Mr. Ken McDonald

Standing Committee on Fisheries and Oceans

Tuesday, June 14, 2022

● (1110)

[*English*]

The Chair (Mr. Ken McDonald (Avalon, Lib.)): Good morning, everyone. I now call this meeting to order.

Welcome to meeting number 28 of the House of Commons Standing Committee on Fisheries and Oceans.

Pursuant to Standing Order 108(2) and the motion adopted on February 1, 2022, the committee is resuming its study of science at the Department of Fisheries and Oceans.

This meeting is taking place in a hybrid format pursuant to the House order of November 25, 2021.

For those participating by video conference, when you are ready to speak, click on the icon to activate your mike, and please speak slowly and clearly. When you are not speaking, your mike should be on mute. For interpretation, you have the choice at the bottom of your screen of either the floor, English or French. I'll remind everyone that all comments should be addressed through the chair.

I'd now like to welcome our witnesses for today.

Of course, no strangers to THE committee and no strangers to fisheries issues, we have, as individuals, Mr. Robert Hardy, fisheries consultant, and Mr. Christopher Jones, retired senior fisheries manager, Department of Fisheries and Oceans. They're trying to work out some technical difficulties to get Mr. Jones connected properly.

We also have with us Andrew Trites, professor, marine mammal research unit, Institute for the Oceans and Fisheries, University of British Columbia. Furthermore, from the David Suzuki Foundation, we have Jeffery Young, senior science and policy analyst; from Oceana Canada, Robert Rangeley, director of science; and from Wild First, Sean Jones.

We will go to our rounds of opening statements now.

We'll first go to Mr. Hardy for five minutes or less, please.

Mr. Robert Hardy (Fisheries Consultant, As an Individual): Good morning, Mr. Chairman, and members of the Standing Committee on Fisheries and Oceans and other presenters. I appreciate the opportunity to speak on the most important and controversial fishery science topics, seal predation, and its impact on Canada's east, west, and Arctic fisheries.

This year is the 30th anniversary of the closure of the northern cod fishery. Once the greatest fishery in the world, it was closed in July 1992, and represents the largest layoff in Canadian history. After three decades of a moratorium, imposed fishing regulations and continued science, the northern cod and other fisheries are a mere fraction of their previous existence.

DFO's latest science indicates that cod stocks remain in a critical state with little recovery. The fishing industry and the public for many years have pointed to record seal populations and predation as a possible cause. DFO science is reluctant to accept the impact of seals on any fish stocks, i.e., Atlantic cod, capelin, Atlantic mackerel, or west and east coast salmon, and instead remains dismissive and ignores the evidence provided by fishers, indigenous people, industry associations and seal science from other North Atlantic fishing nations—countries with the same seal and fish species as our own.

There is considerable international commentary regarding the impact of pinnipeds on fisheries. Countries like Norway, Iceland, the United States, the Baltics and Scandinavia are recognizing the impact of seals. All of these countries have fewer seal species than Canada, and most with only a few hundred thousand animals compared with our estimated combined population of 10 million in Atlantic Canada.

DFO in January 2022 provided information on daily harp seal consumption rates at 3% of body weight, or roughly 3 kilograms per day, while data from Norwegian scientists indicate higher rates, up to 7 to 9 kilograms per day. The difference when extrapolated over 7.6 million harp seals is significant and cannot be discounted. Norway, in 1986 and 1995, experienced significant decline in all fish resources. Their science referred to it as a harp seal “invasion”. Depletion of our fisheries leading up to 1992 has not received a similar review by Canada's fisheries managers.

I hope you got my handout there, and I do include two graphs. One is from Norwegian science. You see the two valleys there in the mid-1980s and the mid-1990s, and above they have written in there “seal invasion”. This is directly from Norwegian scientists. Below I include a chart from DFO of northwest Atlantic cod production, and you see the decline leading up to the moratorium in 1992. That decline, that horizontal line, continues across the chart without any recovery.

Most recently, after the submission of the Atlantic seal science task team report, there has been a discussion of a seal summit or forum. There have been far too many seal studies, committees and forums without any real action. There are many other Atlantic seal science task team recommendations relating to enhanced diet sampling, spatial analysis through the entire seal habitat, market access, greater fisher participation in science programs and the important analysis of resident river seals. These recommended science activities should be prioritized and implemented immediately.

In closing, I will include a media quote from a senior DFO scientist that “For years, fishermen have have been told it's fishing that drives populations” and that DFO manages fishermen, not fish, so it's only natural fishermen might consider seals as a competitive fishery.

● (1115)

I call it “predator envy”. From my lifetime of experience and perspective, there is no envy in the current state of Canada's fishery or its science program. It's time for action and not endless debate.

Thank you for your valuable time. I look forward to answering any questions and sharing all related information.

The Chair: Thank you, Mr. Hardy.

I see Mr. Jones is all connected.

Mr. Jones, you can go with your opening statement up to five minutes or less, please. No, you're still on mute. You have gone back on mute again.

Can we ask tech to get in touch with Mr. Jones to see if we can get that straightened out?

We will go to Andrew Trites next.

Dr. Andrew Trites (Professor, Marine Mammal Research Unit, Institute for the Oceans and Fisheries, University of British Columbia, As an Individual): Thank you, Mr. Chairman.

My name is Andrew Trites. I am a professor at the institute for the oceans and fisheries at the University of British Columbia and director of the marine mammal research unit.

I have been studying marine mammals for over 40 years. My research encompasses field studies, laboratory work and computer-based studies. Many of my studies have been done in collaboration with research scientists at DFO, the U.S. National Marine Fisheries Service and the Alaska Department of Fish and Game. I've also served, and continue to serve, on a number of advisory committees, including the marine mammal specialist group for COSEWIC, the Committee on the Status of Endangered Wildlife in Canada. As such, I am acutely aware of the threats and conservation challenges facing marine mammals in Canada, as well as the challenges marine mammals pose for fisheries.

Canada is recognized as a world leader in fisheries and oceans research, which reflects well on the productivity and quality of research done by DFO, universities and other groups. However, I think we fall short as a country in terms of doing science that matters to fishermen, coastal communities, tourist operators and fisheries managers, among others. I think a new approach is warranted to ensure that the fisheries and oceans research undertaken in the coming years addresses the concerns expressed by the different sectors that have a significant stake in the health of Canada's fisheries and marine ecosystems.

One of the most satisfying research programs I've participated in during my career was a five-year program called the Canadian Fisheries Research Network, or CFRN. It was funded by NSERC and ended in 2015. CFRN was a collaborative research program overseen by fishermen, academics and government scientists that had graduate student training at its core. It involved 30 academics from 15 universities working closely with DFO and representatives of fishing fleets from Canada's Atlantic, Pacific and freshwater fisheries. The collective goal of the CFRN was to develop fisheries research capacity and enhance collaborations across sectors. By all accounts, it built the trust of fishermen, facilitated needed independent research, produced timely results and showed a way to reshape fisheries research in Canada for the better.

Unfortunately, there was no means for NSERC to continue the program after 2015, nor were there funds forthcoming from DFO to continue to support this type of collaborative, independent research. In my opinion, CFRN was a successful, unprecedented program that addressed many of the concerns raised about science at the Department of Fisheries and Oceans. It should have been allowed to continue, but it faltered in the absence of political support and dedicated funding.

I'd like to encourage you to think about reinstating a Canadian Fisheries Research Network-type program, or consider a smaller national program to fund research clusters that draw on the strengths of universities to answer priority DFO and industry questions. Research clusters, centred at universities, could be formed across Canada to address issues pertaining to lobsters, groundfish, salmon, climate change, marine mammals and many other topics. Using the CFRN blueprint, the centre of each cluster would be graduate student-led research supported by a small team of six mentors, let's say, from industry, DFO and academia to formulate research plans, identify research topics and assist in securing the necessary resources.

I have no doubt that providing each cluster with an annual budget of, let's say, $100,000 will pay off big time in terms of cost-effectiveness and timeliness of results, in addition to training students who have a much-needed, grounded understanding of Canadian fisheries and who can become top future hires for DFO or industry.

In conclusion, I'd like to encourage you to work with universities to consider new ways to fund fisheries science that restores confidence and builds collaborations between DFO and industry, as well as strengthens Canada's capacity to undertake timely and comprehensive fisheries research. I believe that establishing and funding university-based fisheries research clusters, with the support of industry and DFO managers and researchers, would significantly help address many of the concerns that have been raised about science at the Department of Fisheries and Oceans.

Thank you for giving me this opportunity to speak with you today.

● (1120)

The Chair: Thank you.

We'll now go to Dr. Rangeley from Oceana Canada for five minutes or less, please.

Dr. Robert Rangeley (Director of Science, Oceana Canada): Good morning, Mr. Chair and committee. Thank you for the opportunity to contribute to this important work.

My name is Dr. Robert Rangeley, and I am Oceana Canada's director of science.

I would like to focus on three recommendations within the scope of this study, all related to Oceana's mission to restore our oceans to abundance to help feed the world. We believe these recommendations get to the heart of what science information is prioritized, how effectively it is used in decision-making and how DFO shares the basis of those decisions with the public.

Oceana Canada believes that DFO must prioritize and resource the increase in capacity necessary to complete fisheries rebuilding plans, adequately monitor our fisheries and increase public accountability in decision-making.

First, Canada's new rebuilding regulation should mark a major turning point for our fisheries that ensures critically depleted populations get the necessary plans for a long overdue effort on rebuilding. Of course, success depends on how well the regulations are implemented, and that requires collecting and making decisions based on good science.

DFO now has 24 months to create plans for the 16 critical stocks in the batch one list of the new regulations, and soon the minister must batch in all remaining stocks. This is good news. What is not at all clear is how the requirements will be met, given DFO's track record.

Oceana Canada's annual fishery audit found that only seven of 33 critically depleted stocks—that's about 21%—have rebuilding plans and that most are of poor quality. DFO achieves only 20% of their deliverables laid out in annual work plans, but, had they met their priorities, they would have doubled the number of completed rebuilding plans.

Because of a lack of science resources, the task may be larger than DFO is acknowledging. A new analysis that includes data-poor stocks suggests that the total number in the critical zone may be 58, or 25% of all our stocks, not counting salmon.

Second, DFO needs to address inconsistencies in catch monitoring by fully implementing the fishery monitoring policy introduced in 2019, which sets national standards for objectives and methods. One of the reasons our stocks continue to be overfished or fail to recover is that DFO consistently undercounts how many fish are taken, including all sources of fishing from commercial and recreational to bait and bycatch. There are no fishing mortality estimates for 80% of our stocks, and for the remainder, we don't have the full picture. To give populations a chance to recover, DFO must count everything caught in a fishery and account for all sources of fishing mortality in decision-making.

Third, DFO must publicly communicate the scientific findings on which management is based in advance of fisheries decisions. The Canadian science advisory secretariat, CSAS, has a policy intended to ensure transparency and timely dissemination of publications. Unfortunately, less than 10% of science publications are released on time.

To make matters worse, the most relevant science advice was often not publicly available until after the decision was made and communicated. As a result, and despite the government's intention to promote public transparency and policy engagement, decision-making in DFO may be based too frequently on a flawed or limited understanding of the underlying scientific evidence.

To recap, Oceana Canada recommends that DFO prioritizes and increases their capacity to develop science-based rebuilding plans for all critically depleted stocks, to invest in and implement the fisheries monitoring policy so we count everything we catch and to publicly communicate the scientific basis on which fisheries management decisions are made.

The health of one of Canada's most important industries and the future of our coastal communities depends on how and how well scientific information is collected, used and communicated.

To demonstrate that they are meeting these and other responsibilities, Oceana recommends that DFO publishes, in an annual report on the status of stocks, staffing levels and expenditures by program area and fisheries management performance in a publicly available report to Parliament.

While I have narrowly focused my comments, there is a broader engagement and sources of evidence, including by indigenous communities, that must ultimately inform fisheries decision-making in an ecosystem context while urgently addressing the growing threats of climate change.

Thank you.

● (1125)

The Chair: Thank you for that.

We'll now go to Mr. Sean Jones for five minutes or less, please.

Mr. Sean Jones (Lawyer, Wild First): Good morning, Mr. Chair. Thank you.

My name is Sean Jones. I've been legal counsel for Wild First on finfish aquaculture issues for over six years. I'm appearing today on behalf of Wild First.

I thank the committee and its members for conducting this important study into science at DFO.

I've also acted on behalf of first nations, including the 'Namgis First Nation and Homalco First Nation, on related issues, including DFO's unlawful regulation of the piscine orthoreovirus, the orderly transition of open net-pen feedlots from the Broughton Archipelago, and the minister's decision to phase out feedlots from the Discovery Islands.

My experience has convinced me that the aquaculture management directorate and the Canadian science advisory secretariat consistently suppress, misrepresent and ignore the scientific evidence demonstrating that open net-pen feedlots of Atlantic salmon threaten the survival of wild Pacific salmon. DFO relies on this suppression and misrepresentation to excuse itself from executing its legal obligations, both domestically and internationally.

I am convinced that the minister, members of Parliament and the Canadian public cannot rely on either the aquaculture management directorate or the Canadian science advisory secretariat for an accurate and objective assessment of the harm that open net-pen feedlots cause to endangered Pacific salmon.

I respectfully suggest in the strongest possible terms that this committee recommend that, first, the minister appoint an independent scientific adviser to advise the minister on the voluminous scientific evidence demonstrating that open net-pen feedlots infect wild Pacific salmon with parasites and pathogens that cause population-level impacts to wild Pacific salmon. This recommendation is consistent with the 2018 independent panel on aquaculture science's conclusion that DFO could not evaluate science objectively and its recommendation that DFO appoint a departmental adviser on aquaculture issues.

Second, the conduct of DFO and the misfeasance of DFO managers should be investigated further and fully by an independent third party such as a commissioner appointed under the Inquiries Act, and preferably by an investigator with the power of subpoena.

Both actions are necessary to ensure the minister has accurate information before her.

I make these recommendations after reviewing tens of thousands of pages of documents released under the Access to Information Act and after being involved in processes in which DFO managers have, among other things, unlawfully suppressed the research of Canadian and international scientists and interfered with scientists' communication of their research to DFO decision-makers. They have misrepresented the content of scientific papers in risk assessments and publicly misrepresented the consensus achieved by scientists during risk assessments, including changing the findings of scientists without their consent. They have departed, without justification, from international standards for diagnosing disease and detecting outbreaks including allowing industry licensees to vote on risk assessments and how disease would be diagnosed. They have adopted unlawful criteria for adopting the precautionary principle and presented conclusions in risk assessments for which there was no evidence and refused to provide evidence to support those conclusions when requested.

This litany of misfeasance by DFO managers parallels its conduct during the collapse of the Atlantic cod fishery, when DFO routinely suppressed and misrepresented evidence of harm. The perniciously ubiquitous nature of this misconduct confirms that it's not the product of a few exceptional bad apples, but the fruit of a poisoned orchard.

Justice Cohen warned of this outcome. The commissioner of the environment and sustainable development found that DFO was vulnerable to claims that it prioritized the interests of the aquaculture industry. Canada's chief scientist confirmed that DFO could not evaluate evidence without bias. DFO has not corrected any of this misconduct.

● (1130)

[*Translation*]

Mrs. Caroline Desbiens (Beauport—Côte-de-Beaupré—Île d'Orléans—Charlevoix, BQ): Mr. Chair, I'm not hearing the interpretation anymore.

[*English*]

The Chair: We're going to have to pause for a second, Mr. Jones, because we're not getting interpretation.

Is it good now? Okay.

Please continue, Mr. Jones.

Mr. Sean Jones: Thank you.

With great respect for the work of this committee, I strongly recommend that this committee's work be a first step and that this committee recommend that an independent third party further investigate DFO and DFO managers to make recommendations for the necessary reform.

Otherwise, the protection and conservation of Canada's public fishery on the west coast of Canada will remain in unsafe hands.

Thank you very much, Mr. Chair.

The Chair: Thank you for that.

We'll now go to Mr. Young for five minutes or less.

Mr. Jeffery Young (Senior Science and Policy Analyst, David Suzuki Foundation): Hello and thank you to the chair and committee for having me here today.

As a bit of background, I've been working on Pacific salmon conservation and overall species recovery in Canada for the past 20 years. I have participated in various DFO stakeholder and scientific processes, including the Pacific salmon integrated harvest planning committee, the Fraser River panel under the Pacific Salmon Commission, southern resident killer whale technical working groups and government scientific reviews, including recovery-potential assessments for at-risk Pacific salmon populations.

Science is central to DFO function. It is the best way to understand the state of the fisheries and oceans we are trying to protect and manage. It is also our most effective tool at measuring our success in meeting our targets and tracking progress towards new goals.

Right now, the process for DFO decision-making is broken, and science is at the middle of this failure, or, more concerningly, is being pushed to the side. There's a tendency within DFO to maximize its own discretion while minimizing accountability, which in turn is failing our fish, oceans and all Canadians. Without clear direction and transparent reporting on measurable objectives, this is an inevitable outcome.

Stakeholder tables and even technical working groups formed by DFO have largely served to reposition DFO as an arbiter between interests rather than a regulator and upholder of good science and evidence-based information. Further, there remain far too many instances in which there is a demonstrated conflict of interest between DFO managers and the fisheries or aquaculture operations they are meant to regulate and manage, further marginalizing science and avoiding hard decisions that must be made for the benefit of the fish, oceans and the future of these very industries.

The lack of a transparent accountability framework is evident, but it doesn't have to be this way. DFO in general has a good track record in completing scientific research and the necessary monitoring to evaluate fish stock and habitat condition. The ability to do good science is there.

Over the past 20 years, DFO has successfully developed and published a number of key policies that are informed by the latest science on effective, ecological management and that represent best practices globally. Such policies include the Pacific wild salmon policy and the sustainable fisheries framework.

Although the support for these core functions and policies has fluctuated over time, we currently have the resources and ministerial direction—at least in Pacific salmon via the Pacific salmon strategy initiative—to truly address outstanding issues with the function of DFO management and science, to address key gaps in critical core monitoring and research, and to implement these critical policies.

I feel it is important to add that within the context of science, it is critical to understand that ecosystems are highly complex and that our science and management systems need to be designed around understanding risk and managing our own impacts. Using science to attempt to push our impacts as far as we possibly can has failed. Further, attempting to manipulate or control ecosystems, often to address problems we have created in the first place, has also failed. Examples include salmon hatcheries, which have largely made the problems of salmon abundance and health even worse. In the recent words of an academic colleague, if salmon hatcheries were a drug, they would not be approved by Health Canada.

The belief that culling a salmon predator, such as seals and sea lions, will improve salmon abundance disregards the complexity of these ecosystems and unintended negative outcomes that could ensue. These pinnipeds are a natural part of these ecosystems, and attempts to control their populations through intentional killing is even more likely to fail to produce intended benefits than are our attempts to manage the salmon fisheries themselves.

We have the plans and policies and, to a large degree, the financial and human resource capacity to implement them. Our challenge today is a lack of accountability built on a foundation of transparent, evidence-based reporting. Science needs to be recentred in the decision-making structure, while we ensure that it is adequately transparent and independent of political interference. It is appropriate for the political decision-makers to weigh multiple considerations, but it is critical that science advice and information be as objective as possible and be made available to the public.

● (1135)

How do we do it? Implement existing policies that provide clear and science-based guidance on how to achieve conservation and management outcomes. Create a clear plan for achieving co-governance with first nations. Make public commitments to achieve specific outcomes related to these policies. Create a tracking and auditing mechanism focused on these outcomes, including independent technical advisory bodies. COSEWIC provides a good model. A previous witness discussed this quite extensively.

Report on results and provide guidance on implementation. Focus existing or new stakeholder processes around achieving these objectives, and restructure DFO where necessary to support these changes and remove conflicts of interest.

Thank you.

The Chair: Thank you for that.

We'll now go back and try Mr. Christopher Jones again.

You have five minutes or less....

You're still on mute.

Mr. Christopher Jones (Senior Fisheries Manager, Department of Fisheries and Oceans (Retired), As an Individual): Let me try this. Can you hear me now?

The Chair: Yes. You're coming through loud and clear.

Mr. Christopher Jones: My apologies. I'm working with technology that didn't get sent to me in time. That's my excuse, and I'll stick with it for now.

Thank you, everyone, for the opportunity to have a discussion with you today. As for my background, I'm a former federal fisheries manager. I've worked in Ottawa, overseas and throughout Atlantic Canada. I've worked with CSAS in requesting CSAS stock assessments and framework reviews, and participated in stock assessment reviews and editorial assessments of that process.

What I'm about to delve into is a series of questions. It appears that during the past several years, DFO has updated most of its stock assessment models, which for the most part have resulted in decreasing assessments. As a consequence of those efforts to update recent assessment models, several key questions arise that would be helpful if they could be elaborated on. I currently work with a group of retired scientists from DFO, those working both within the fishery as fishermen and on the sea and with companies domestically and internationally.

There are some questions that come to mind that are representative of all our discussions. Why were the assessment models updated at this time? There are arguments that suggest that it was time to take a more conservation-focused approach, but what parameters were updated, and to what degree were they updated? These are the technical questions that come out from discussions that the scientists who are outside the department are keen to try to understand. It isn't clear to them what science was used to update those parameters.

Using halibut as an example, the halibut fishery has been solid on the Atlantic coast for years. The population has recovered under the existing models. This has created questions. If the existing model was either inadequate or flawed, how could the halibut population thrive using it? What was the rationale for changing the model if the model may not have been flawed? The new model suggests reducing the quota by 13%. Is this an indicator of increased accuracy within the new model, or has the model been adjusted to reflect the enhanced conservation objectives? If not, is there an accuracy threshold that the new assessment modelling is striving to achieve?

Another interesting question comes to mind, because we're associated fairly closely with Scandinavian scientists. Are there correlations between the updated Canadian assessment models and typical Scandinavian stock assessment models, whereas most fish stocks are either increasing or at an all-time-high stable level in Scandinavia?

With respect to the department's promotion of marine protected areas and marine refuges and their projected increase in number, complexity and sizes, what degree of commitment of physical and human resources has science separately forecasted to directly support and subsequently monitor these initiatives? In other words, what degree of resources may have to be pared off from science to support ongoing monitoring of the ever-increasing numbers and sizes of these protected areas?

What is the anticipated impact on science resources to continue stock assessments should increased science resources be delegated elsewhere? For example, in the maritime region, stocks have been segregated into two-tier systems where high-profile stocks receive higher levels of science versus the lower-profile stocks, which receive little to no science assessment. Stakeholders have been advised that this ratio may change to even less science support in future because of increased demands elsewhere.

These are but questions that come to mind from a group of scientists who work within the industry and on the water. On the recommendations that emanate from this, we would hope that science is open and transparent in developing a presentation and priorities so that we can all debate them as they move forward.

● (1140)

Thank you, Mr. Chair.

The Chair: Thank you for that.

We'll now go to our rounds of questioning.

Before I start, I neglected to mention that Mr. Kram is joining us today in place of Mr. Zimmer, and Ms. Valdez is replacing Mr. Kelloway.

Welcome to FOPO.

We'll now go to the rounds of questioning of witnesses. I will ask members to please identify who you want to answer the question. We have six witnesses here today. I don't want everybody staring at the screen or wondering who the question is for. It's your time, but you'll lose time if you don't identify who you want to answer your question.

We'll first go to Mr. Perkins for six minutes or less, please.

Mr. Rick Perkins (South Shore—St. Margarets, CPC): Thank you, Mr. Chair.

Thank you, witnesses, for coming in for this important study. We all appreciate your time.

It's been an interesting study. Since we have two Joneses, I guess I'll have to use the first name. We don't generally use the first name. I'll go with Christopher Jones for $50.

Voices: Oh, oh!

Mr. Rick Perkins: I'll go with Mr. Jones for the first few questions I have.

You have an extensive background, having worked both in the department in policy areas and now in your retirement, I assume, working with fishing groups and organizations.

Can you let the committee know a bit about the difference in what your experience is and how those who are on the water fishing are consulted and dealt with today in the consultations and development of the science and decision-making processes that the minister has versus perhaps the time when you were in the department?

The Chair: Mr. Jones, before you start to answer, could you move your mike up a little higher? The interpreters are getting some static from it.

Okay. Try it again now with your answer, please.

Mr. Christopher Jones: Can you hear me clearly now?

Okay.

Things have changed substantially over the past 30 years, as most things have. In the past, my experience was that I was actually able, in consultations with industry and fishermen's groups, to have a team of economists, statisticians and scientists with me to answer questions. It was highly intense. We spent a great deal of our time preparing for the presentations and dialogue and also a great deal of time recapping and developing the recommendations that emanated from those discussions and consultations.

What we're finding today is that fisheries management arrives with consultations for groups and they assume that all fishermen belong to an association. Those who don't are discounted, not engaged, not involved and not contacted.

Fisheries management doesn't seem to have the same team of scientists, economists and statisticians with enforcement background who would come to meetings that we had in the past. The fishermen, many of whom are a mix of both previous generations and current generations, are frustrated. They ask questions, which someone will take under advisement, and someone may come back to them. They're also feeling left out of that process, because very seldom does anyone ever get back to them.

The degree of fisheries—

● (1145)

Mr. Rick Perkins: I have limited time, so can I perhaps move on to my next question?

In the case of marine-protected areas, which you've mentioned, we have a couple of issues: one recently announced by the minister on the marine refuge off the Eastern Canyons of Nova Scotia and another one that's been ongoing in discussions on the Eastern Shore area of interest. Have you been part of discussions with the department about what the actual science is and the purpose of those marine-protected areas? Does the department actually have any science to support what it is that they're protecting?

Mr. Christopher Jones: This was challenging. Yes, I have been involved with the department on these issues, most notably Oceans. We have not had the dialogue with science. The department uses science as an argument, but when a group of us sit down and do the analysis on impact and try to quantify the impact—we try to measure it, which was a point made earlier—and ask the questions, science is not involved in those dialogues. It's simply Oceans referencing science. That's a most frustrating exercise, because science is not there to give us a direct response or to provide an opportunity for direct questions.

Mr. Rick Perkins: Thank you.

On another subject, I've spoken quite a bit during this study about the decision on mackerel. Mackerel is obviously a transboundary stock with the United States. You have had a lot of experience in international discussions and negotiations of issues on behalf of Canada and DFO. Are you aware of whether or not Canada works jointly with the United States on science on the mackerel stocks?

Mr. Christopher Jones: No, we're not, and that's one of the questions. The fishing industry itself is cross border in terms of the contacts and information flow. Both the U.S. and the Canadian industries are not aware of any contact between DFO science and NMFS science.

Mr. Rick Perkins: I think I have a little more time left.

On that issue, analysis by my office is that the department uses spawning biomass surveys to determine the biomass of the Atlantic mackerel stocks. On average, over the last 10 years, the department's been doing the science when the water is 8 degrees, when mackerel spawn at 10 degrees to 13 degrees.

In your view and experience, what would the result of that kind of science be?

Mr. Christopher Jones: What it suggests is that it needs broader input into the science assessment. Temperature and egg stock status reference is one. However, years ago and perhaps over a decade ago, we had scientists come along the coasts of both Nova Scotia and Newfoundland, working with the fishing industry, doing measurements and expanding the database for the assessment of mackerel.

● (1150)

The Chair: Thank you, Mr. Perkins.

We'll now go to Mr. Hardie for six minutes or less, please.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): Thank you, Mr. Chair, and thank you, all, for being here.

There's a thread that's developed through your various testimony and I'm going to try to link it—a string of pearls kind of thing, a Glenn Miller kind of thing. Christopher Jones might remember that.

Mr. Jones, Christopher, was there a time when science was done externally from the DFO?

Mr. Christopher Jones: It was. I would say, to respond to your question, there were combinations of DFO science and external science. What I mean by that is there were regional science bodies such as NAFO involved, and DFO science reached out to science both in ICES in the eastern Atlantic and with NAFO scientists to collaborate on assessment modelling and methodologies.

Mr. Ken Hardie: One of the things we've noticed is that inevitably science doesn't give us definitive answers and definitive advice. In fact, what it does is that somebody makes a decision and they say it's based on science, and that then promotes conflicts, invalidation, duelling science, etc. Is there a mechanism to work through these conflicts in an objective way to come up with something on which everybody can nod and say, okay, it is what it is?

Mr. Christopher Jones: It depends on the questions often asked of science—

Mr. Ken Hardie: I'm sorry, Mr. Jones, that was to Dr. Trites.

Dr. Andrew Trites: Sorry, could you rephrase the question.

Mr. Ken Hardie: We have a decision made. Let's take the Minister of Fisheries and Oceans as an example, who says the decision was made on the basis of science. Inevitably, there will be people who will come forward and disagree with those findings. They'll disagree with the science. They'll try to invalidate the science. Of course, the resulting dust-up then leaves everybody wondering how on earth you can make a decision, especially because science quite often doesn't give you definitive advice.

Therefore, what's the best way through this? Is the CSAS model the best way to go?

Dr. Andrew Trites: I think the CSAS model is a good approach. I think where the rubber meets the road is often with the certainty that different scientific studies have. It seems that very few people ever ask, what is your confidence in your result?

Typically, for example, we've got some models that predict that removing seals from the west coast of Canada would increase the abundance of salmon, and many people will rally behind that conclusion without ever asking, how confident are you in those results? The people doing the models and those who are familiar with how they're parameterized would tell you, there's about a 30% to 40% chance that the model is right.

For many people, if you're going to make a big decision like that, you want to have a confidence of over 80%. On the other hand, if what you're putting up and what's at stake is something one might not value, perhaps the life of the seal for example, you can say that 30% to 40% odds are amazing when you look at how much the fishery is worth.

For other people, it's too big a gamble, as one that would take perhaps 30 to 40 years to discover it may have been a failed gamble.

Mr. Ken Hardie: Sir, I'll have to intercept you at that point. This is fascinating, and if you have more to add on this particular issue—because we will be spending a lot of time talking about seals—something in writing would be absolutely golden, if you can provide it.

Mr. Hardy, we hear all the comments about seals and salmon, and seals and cod. We see how the cod and salmon stocks are in trouble. If a main source of food is being depleted, why are seal populations increasing?

Mr. Robert Hardy: It's a very good question.

We haven't really seen a lot of work in relation to seals. Most of the data we studied, as part of the Atlantic seal science task team, was dated. The offshore diet analysis was done prior to the mid-1990s. The inshore sampling, done predominantly in the same locations each year, takes place in the fall and winter months. For studying diet, we wouldn't find things like capelin or cod, because there's no fish inshore in Newfoundland and Labrador at that time.

In relation to populations growing, there were some numbers released last week on the grey seals. According to DFO, the population has slightly declined from the previous census. There is a census taking place this year, 2022, on the harp seal, so I would think that will work its way through DFO. Within a year or two, we should get some indication of the harp seal population.

● (1155)

Mr. Ken Hardie: Okay, I'll have to intercept again, at this point. I have zero time left.

I'm sorry. I should have let you finish, Mr. Hardy. We might get back to you.

Thank you.

The Chair: Thank you, Mr. Hardie.

We'll now go to Madame Desbiens for six minutes or less.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

I'm going to address Mr. Hardy.

Earlier, you mentioned the 30th anniversary of the moratorium on the cod fishery. Personally, it's something I'll never forget, since I used to go cod fishing with my father in the St. Lawrence estuary. My father used to tell me that we had to take advantage of eating cod, because we would no longer be able to eat it in 15 or 20 years, that the cod would be gone because of the seal situation.

Today we're all sitting here and thinking about that outcome. I have to say that the pinnipeds are an easy target. Do you honestly believe that we have an overpopulation of seals and that they too are suffering due to that overpopulation?

[*English*]

Mr. Robert Hardy: I have to apologize. I'm sure the question was quite good, but I did not get the translation, so I don't have the information or knowledge to answer your question.

The Chair: Mr. Hardy, on the bottom of your screen, there should be something you can hit for interpretation. You can pick “floor”, “English” or “French”. If you want to hear everything in English, pick “English”. If you want to hear it in French, pick “French”.

Mr. Robert Hardy: Okay, I just flicked that, Mr. Chair.

The Chair: I'll let Madame Desbiens start over because of that technical difficulty with the question.

[*Translation*]

Mrs. Caroline Desbiens: Okay.

Can you hear me, Mr. Hardy?

[*English*]

Mr. Robert Hardy: Yes, I can.

[*Translation*]

Mrs. Caroline Desbiens: Okay.

I'm going to do my little presentation again because I feel it's important.

In 1990, I used to go to sea in the St. Lawrence estuary with my father and we fished for cod. We fished for recreational purposes. My father would tell me to enjoy it because we wouldn't be able to eat cod in 15 or 20 years since the seal hunt was ending.

Seals are an easy target and we put a lot of blame on them. I, for one, also care what happens to them. Do you think the seals are suffering now because of their overpopulation? We hear they have no shoreline anymore and that they have less food than they used to. That's also part of the committee's concern.

Do you believe that their overpopulation is also hurting the seals themselves?

[*English*]

Mr. Robert Hardy: Thank you for your question. I got the translation.

When you have seven to 10 million animals consuming anywhere from 1 kilogram to 7 kilograms of fish a day, the daily consumption rate is huge. The prey fish, in terms of capelin and herring that other species rely on, are predominant species that seals consume. With a very large population of seals, eating prey fish would have an impact on other fish species and larger fish species, for sure.

There were 7.6 million harp seals in the last census. Is it presently increasing? Has it stabilized? Some people indicate that the seal body mass is being reduced. Science indicates that the pupping rates are down. You may be at a state where the population has reached its maximum carrying capacity and going forward, seal populations could be reduced, quite simply because they have eaten themselves out of house and home.

I appreciate your father's comments of when he was on the water. I spent a lifetime on the water. I hear comments every day that are similar. To date, to be quite honest to the people who are attending this meeting, there has been very little done on seals. I think we need to open our eyes and have a look at the science that has been done in other countries and at the data that is available on seal diet.

● (1200)

[*Translation*]

Mrs. Caroline Desbiens: It will be nice to visit Norway, if we get permission to do that, so we can ask those questions.

Mr. Hardy, we are in a situation where we would like to find a solution to control the seal population. I have met with sealers who hunt responsibly. Nothing is lost or wasted in their catch. The meat is used to feed first nations who no longer have access to their traditional food supply. Do you think this kind of hunt would meet the acceptability criteria?

[*English*]

Mr. Robert Hardy: Absolutely. Seal offers many different products that can be utilized. The animal should be fully utilized when it's taken.

I think Canada has missed out on an opportunity to produce edible food, not only for our northern communities, but also for countries that do not have an adequate food supply. There are various humane efforts with other types of products—grains and different types of products—and seal, if processed correctly, could offer a high-protein food source for the many people who will starve in the world. With the ongoing conflict in Ukraine, we see on the news every day that this is going to be a bigger issue.

Seal is a resource. Seal offers probably some of the best protein. It is rich in omega-3. All health professionals will indicate the benefits of omega-3. Seal offers premium omega-3.

There are many things that we need to do and we need action. We need our government to support the product research, market development and market access, because over the years, as we know, the animal rights groups have—

[*Translation*]

Mrs. Caroline Desbiens: Do you feel that the DFO and the government should invest additional funds into fair and acceptable promotion, should a decision be made to reestablish some respectful and responsible sealing? Do we need to fund better promotion?

[*English*]

Mr. Robert Hardy: Absolutely. I think all federal government departments working with provincial governments, local communities and indigenous groups need to co-operate and find a way to go forward.

You are absolutely right with the reference to how humane the seal hunt is. It has been studied by international veterinarians many times. The hunt is as humane as a wild hunt can be. We need to co-operate, find a use and harvest the 455,000 animals—harp seals alone—which there is an existing quota for.

Many believe that if we could take the quota, we would see an immediate impact on our fisheries around Atlantic Canada and on similar problems on the west coast.

[*Translation*]

Mrs. Caroline Desbiens: Thank you.

[*English*]

The Chair: Thank you, Madame Desbiens.

We'll now go to Ms. Barron for six minutes or less, please.

Ms. Lisa Marie Barron (Nanaimo—Ladysmith, NDP): Thank you, Mr. Chair.

Thank you to all the witnesses who are here today for all of the important information you have provided.

I want to ask my question of Mr. Young, who I'm happy is with us here today.

Mr. Young, you spoke about the importance of making decisions, understanding the complexity of ecosystems and how previous attempts to manipulate and control our complex marine ecosystems have not proven fruitful. You also spoke about the importance of co-governance with first nations and included that as one of your recommendations.

Could you highlight for us a little bit the interconnection between the ecosystem approach and first nation co-governance? How would these decision-making processes in a co-governance model help to provide more sound decisions that would be more sustainable for both fisheries and our marine environment?

● (1205)

Mr. Jeffery Young: Ultimately, part of what I was trying to suggest is that science isn't necessarily about a perfect understanding of things, and this is especially true when we're dealing with ecosystems and broad, wild species that live under the water. Nonetheless, ultimately, we can apply our own principles and objectives and then try to measure and identify whether we're being successful at doing that. Science plays a key role in that. Science thrives on daylight and ultimately ensuring that it's made public and that decisions that are made politically are informed by that science, and others understanding what that science is is very important.

The co-governance piece is very critical in really adjusting and moving our management of fisheries and aquatic ecosystems back to their rightful place. It also presents an opportunity to relook at how we look at ecosystems in science and its role in management.

As it currently stands, we're not yet moving adequately towards co-governance in a way that ensures that we're taking advantage of that opportunity and empowering these first nations communities to take on those responsibilities themselves. There are multiple demonstrations of extremely powerful leadership from first nations communities that are bringing traditional knowledge and science in an open, transparent approach to fisheries management that is a model for us to follow.

Ms. Lisa Marie Barron: Thank you very much.

Through the chair, Mr. Young, do you have any examples you could provide of where we've seen some success in this area?

Mr. Jeffery Young: Along the west coast, there are a number of communities that have really stepped forward in the last 10, 15 or 20 years, developing entirely new science programs and new approaches to fisheries management that are much more consistent with global best practices. Some of these places include the Nuu-chah-nulth on the west coast of Vancouver Island and various communities in the Skeena River watershed. Throughout the Fraser watershed, very substantial efforts are under way right now to get a better handle on the population dynamics of their own salmon and to develop some of these co-governance models with both the federal and provincial government to get back to salmon recovery and ultimately a return of salmon to these communities so that they can benefit them.

Ms. Lisa Marie Barron: Thank you very much.

My next question is for Mr. Jones.

To move forward in a better way, it's good for us to look at international jurisdictions and what their best practices are in terms of science. Could you clarify this and talk more about some examples of best practices internationally when it comes to science that you've seen that Canada perhaps should emulate?

Thank you.

The Chair: Ms. Barron, there are two Joneses on line, so you might want to identify which one your question is for.

Ms. Lisa Marie Barron: Thank you.

It's for Mr. Sean Jones, please.

Mr. Sean Jones: I thank you for your question.

The previous witness spoke about collaborative governance with first nations. I think in Canada that's a model that can bring another voice to the table. Certainly in the CSAS process, it is one that excludes first nations despite their duty to consult being triggered.

I think one of the things, particularly with respect to finfish aquaculture, is that Canada needs to be more closely guided by the OIE's guidance and it's aquatic animal health code and manuals. For example, when DFO recently let industry licensees vote on how to diagnose HSMI, heart and skeletal muscle inflammation, a disease caused by PRV, it provided those folks with no direction, no terms of reference or no guidance either with respect to Canada's legal duties under the Fishery (General) Regulations or under the OIE's aquatic code.

As a result, they adopted a definition for disease that's almost impossible to make a diagnosis from. They departed from diagnosing disease in individuals at all for this disease and will only now diagnose HSMI if there is population mortality attributed to it. Of course, that creates a logical absurdity. You can't attribute population-level impacts if you aren't diagnosing individuals, and you can't diagnose—according to DFO's process—individuals unless you have population-level impacts. This departs from DFO's obligation to implement the precautionary principle; that is, anticipate, attack and prevent harm. Instead, DFO is looking for proof that the harm has occurred before it will act.

It also deviates from the OIE's aquatic manual in terms of the criteria for establishing sensitivity for diagnosis of outbreaks in epidemiological units and relying on a scientific perspective for diagnosis in an individual.

Moreover, it created significant conflicts of interest where industry licensees were asked to vote on how to diagnose a disease that, if diagnosed, would create significant regulatory burdens on their operations.

I think we need to follow the OIE's international guidance on managing those conflicts of interest, but DFO and CFIA also need to follow that international guidance on reporting emerging diseases.

When PRV was first detected in 2011 in British Columbia, that should have triggered DFO's and CFIA's obligation to report an emerging disease, that we now had a foreign virus detected in British Columbia that was causing disease in endangered chinook. Instead, that disease was—

● (1210)

The Chair: Thank you, Mr. Jones. We've gone way over time and we have to get to the other participants for questions.

We'll now go to Mr. Arnold for five minutes or less, please.

Mr. Mel Arnold (North Okanagan—Shuswap, CPC): Thank you.

Thank you to all of the witnesses for being here today. It's been a very interesting study.

I would like to start with Mr. Jones if I could.

You mentioned in your comments just a moment ago and in your opening remarks that there remain far too many instances where DFO staff are demonstrating a conflict of interest with the fisheries or aquaculture operations they are meant to regulate and manage, further marginalizing science and avoiding the hard decisions that must be made for the benefit of the fish, oceans and these very industries' future.

We probably don't have time today, but I'd like to ask you if you could provide specific examples of that. I think we are all accountable; we certainly are as elected representatives. The department has some very good staff working for it, but it's unclear to this committee so far where some of these decisions are ending up. If you are able to provide any of those examples, it would certainly help the committee's work on this study.

Mr. Sean Jones: Thank you, Mr. Arnold, for your question.

Very briefly, I can provide three examples in addition to the example with the HSMI diagnosis that I referred to earlier.

The first is suppression of a diagnosis of HSMI in 2016. Dr. Miller-Saunders and her team had diagnosed HMSI using an internationally accepted case definition. Documents released under the access to information—

Mr. Mel Arnold: I hate to interrupt, but we will run out of time very quickly. If you're able to provide this information very briefly today or in writing after, that would be appreciated. Thank you.

Mr. Sean Jones: Sure, I can do that.

The access to information documents illustrate that DFO and industry rewrote the press release suppressing Dr. Miller-Saunders's diagnosis.

The second example is with respect to Tenacibaculum. During the Discovery Islands consultation, scientists within DFO had evidence that Tenacibaculum was causing population-level impacts in the Discovery Islands. A briefing note was prepared. This briefing note never made it to the minister. Instead, DFO managers briefed the industry on the same research.

When first nations, during consultation, asked for that research, they were told that there was no evidence that Tenacibaculum causes harm, despite DFO having briefed industry.

The third example—

● (1215)

Mr. Mel Arnold: Thank you.

I want to get on to some other witnesses here today, if we can. We've already consumed half of my time here. We'd appreciate the third one in a written submission to the committee, so that we can consider it.

My next question is for Mr. Sean Jones.

Mr. Jones, in recent years we've seen major decisions relating to fisheries being made by judges with more frequency than any other time I can remember. Here we are studying science at DFO and receiving testimony from you as a lawyer. Certainly, all respect goes to you for your role and the work that you do.

In your opinion, is the Fisheries Act in its current form relevant and updated enough to keep decisions under the purview of the minister and out of the hands of judges?

Mr. Sean Jones: I think the Fisheries Act could use significant revision with respect to how evidence and the powers of the minister are exercised.

I don't think that there's a problem with judges making decisions. In the significant fisheries decisions that I'm aware of, all on judicial review with respect to PRV and the Discovery Island decision, the judge does not make the decision or substitute his or her preferred outcome for the minister's.

In fact, in all of those instances, the court simply turned the decision back to the minister to reconsider.

Mr. Mel Arnold: Thank you.

In your opinion, would we see fewer decisions being made by judges if the minister stuck to the Fisheries Act, under her purview, and sound science as she makes her decisions?

Mr. Sean Jones: I think we'd see fewer decisions being overturned on judicial review if DFO managers were providing the minister with a more fulsome and objective representation of the evidence before her.

In all of the instances that I'm aware of—the two PRV decisions and the Discovery Islands decision—the record placed before the minister was a very one-sided record that did not canvass all of the available evidence or options.

Mr. Mel Arnold: I believe that's my time, Mr. Chair.

The Chair: You have six seconds left. I don't think you'd have time for a question or an answer.

We'll move on to Mr. Morrissey for five minutes or less, please.

Mr. Robert Morrissey (Egmont, Lib.): Thank you, Chair.

Through you, my question is for Mr. Hardy.

Mr. Hardy, there's been a lot of discussion on the seal population on both the east and west coasts—primarily the east coast. When I look at the numbers, the harvest quota has been several million animals over the last number of years. There wouldn't be 10% of it caught. What has to be done to entice fishers to fully exploit the quota that's there now?

Could you comment briefly?

What did we miss? The fishers are not harvesting the allowable quota. Why?

Mr. Robert Hardy: I think the number is far less than several million. It's in the tens of thousands in the last couple of years, in terms of the harp seals.

Mr. Robert Morrissey: That's the harvest. The overall quota's 100,000 animals a year.

Mr. Robert Hardy: To increase the harvest and make it economical for fishers to fish in dangerous conditions, which is usually in the spring of the year when there's a lot of ice around, our governments have to open up market access.

People I talk to in the industry say it's not a problem of people wanting to buy the various products. It's a problem of gaining access, whether that be in Europe or Asia. I guess our friends at Global Affairs and the Canadian Food Inspection Agency have to work together to ensure that we do everything possible to allow these products to reach customers who want to buy them.

● (1220)

Mr. Robert Morrissey: I understand that, Mr. Hardy, but still, the fishers for years have not exploited the resource they had access to, so until we actually solve that problem, I don't think it's a market. To develop a fishery, we have to first of all establish what the cost is and then be prepared to subsidize that in some form until the market is developed, because, as I've pointed out, there are several million there that are not being utilized.

I want to move on to Mr. Chris Jones. In testimony from various witnesses, testimony that has come in has been referencing the modelling DFO uses in the science. This was raised by a number of fisher organizations that were not sure.... They were questioning the modelling used. You, in your testimony, referenced that the stock assessment models were updated and you referenced Canadian versus Scandinavian stock models.

Could you comment? Do you know if there's a significant difference between the modelling used by Canadian fishery science versus the Scandinavian? From all accounts, Scandinavia has managed their fisheries well.

Mr. Christopher Jones: I can't go into the direct comparison. It would take a long time to go into the direct comparison between Scandinavian modelling and Canadian modelling, but I can give you the general view.

We understand the Scandinavian modelling has a lot of direct input from science, from at sea, and they have a very good grasp, an excellent grasp, on the statistics, going back to comments made earlier, and they have a grasp on the data far more than I think we do now. This was once the case with Fisheries perhaps 25 years ago, and I think it has changed significantly, in that scientists are operating largely from labs and on site and in situ situations, versus being at sea. I think that's the difference between the Scandinavian approach and the Canadian approach in general.

Mr. Robert Morrissey: Thank you, Mr. Jones.

I have one final question. How would you recommend to this committee or what would you recommend to this committee on how DFO could incorporate the fisher-based knowledge? There's a disconnect between the two. How would you suggest that for this committee and, because I'm going to run out of time, could you follow it up in maybe a written presentation?

That appears to be the issue that must be resolved: the methodology for incorporating fisher-based knowledge and science with DFO science on the management of the stock. Could you comment briefly?

Mr. Christopher Jones: Yes. I think the incorporation of fisher-based science is not just with science, but with fisheries management. It needs to be done across the board, and science I think needs to incorporate fishers' knowledge directly into their CSAS process. It may be more lengthy and it may be more complicated, but that information is used in other jurisdictions, such as Scandinavia.

The Chair: Thank you, Mr. Morrissey.

We'll now go to Madame Desbiens for two and a half minutes or less, please.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

My question is for Mr. Rangeley. You talked about transparency of information, and I want to follow up on that.

We have a major problem in the Gaspé region, among other places. Herring and mackerel fishers were told that the fishery would be shut down only a few days before it was to open. These individuals are now out of work and have no money coming in. We have no plan, no financial compensation to support them. There's been a complete lack of foresight.

In your opinion, does being transparent with information have an impact on the mental and socio-economic state of our fishers?

How vital is access to information for them?

[*English*]

Dr. Robert Rangeley: We did an analysis—and I can provide the publications—on the timeliness of science information. Those fishers should have been well aware of the science in advance. But what we found is that CSAS has a policy on the publication of documents, and it's a publication based on transparency. Yet if you go through the documents, allowing for a considerably conservative look at the timeliness, only about 10% get published on time. Increasingly, we also see some of the science information in the CSAS documents is coming out after a decision has been made. This is a real challenge especially for those who aren't at the CSAS meetings. The fishermen's representatives may be there, but many of the fishermen are not at those meetings.

One quick solution for this, too, and it's done in some fisheries, and we've seen it in northern cod, is where there's a technical briefing after the meeting and so there's then full disclosure of what the findings are, what the trends are in a publicly accessible way, while the publication process proceeds through the CSAS. I think that's a good model and it might have helped those fishermen who felt in the dark about the scientific basis of the quota decision.

● (1225)

The Chair: Thank you, Madame Desbiens. You're right on time.

We'll now go to Ms. Barron, for two and a half minutes, please.

Ms. Lisa Marie Barron: Thank you, Chair.

My question is also for Dr. Rangeley.

You had spoken about the importance of rebuilding plans and the reports being released. One area that I've heard spoken about through Oceana in the past is the rehabilitation of forage fish stocks.

I'm wondering if you could speak a little bit more about the concerns that have been identified and some of the science and policy gaps specific to this example that you've seen.

Dr. Robert Rangeley: Thank you very much for this question.

This is a fundamental one, and one that is quite disturbing, quite frankly.

As we know, forage fish are the base of the food web. They transfer energy through the ecosystem to other fish predators we rely on, as well as seabirds, whales and so on. Currently, in terms of landings, about 12% by volume and 6% by value of our forage fisheries come from healthy stocks. We're heavily depleting those stocks.

The previous questioner asked about mackerel. Mackerel and herring stocks, unfortunately, had to be closed because of the state of those fisheries. We should have been managing them well in advance of that kind of decision that causes so much disruption. In fact, when you manage forage fish, because of their importance, you need to have a higher threshold for fishing them and making sure that the population biomass is high and a cap as well. You essentially put guardrails in, a precautionary guardrail, so you don't manage those fisheries, because the populations do fluctuate.

That's how they're managed in other areas, and we're not doing that in Canada. It's something I'd really like a tremendous amount of attention paid to.

Ms. Lisa Marie Barron: Thank you, Dr. Rangeley.

My next question is for Mr. Young.

Mr. Young, could you speak a little bit more to stock assessments, specifically the lack of stock assessments we're seeing and how that's impacting our capacity to make sound science-based decisions as we move forward?

Mr. Jeffery Young: As I mentioned in my opening statement, DFO in general knows how to do stock assessment, and has demonstrated that capacity in the past. What has happened over the past 20 years is that much stock assessment has been reduced in many places. This includes Pacific salmon on the west coast. Not only do we lose that basic information we need to make the right decisions about fishing, but we also break the cycle and the long-term information database we have that really helps our long-term understanding.

As I suggested, for Pacific salmon at least, this government has recently announced the Pacific salmon strategy initiative, which provides the opportunity to restore some of that stock assessment—at least for the highly valued Pacific salmon. But, ultimately, stock assessment capacity remains a challenge in a number of fisheries and, as Dr. Rangeley has pointed out, we still lack it in far too many of our species. As much as we hope to take an ecosystem approach, we need to understand not just our target species, but also other species in the ecosystem and how they're being affected by our actions as well.

The Chair: Thank you, Ms. Barron. You're a good bit over the time.

We will go now to Mr. Small for five minutes or less, please.

Mr. Clifford Small (Coast of Bays—Central—Notre Dame, CPC): Thank you, Mr. Chair.

My first question is for Mr. Hardy. I have a couple of questions for him.

Mr. Hardy, what would say is the reason for the drastic difference between the seal diet estimates in Canadian science and Norwegian science? Why would there be such a drastic difference?

● (1230)

Mr. Robert Hardy: There's quite a bit of variability, depending on the reporting. This 3% value, which was issued in January of this year from DFO science, is the lowest that DFO has used in the past 20 years. They also use a lower mean body weight for adult harp seals. It's been reduced from a previous 140 kilograms per animal down to 110 kilograms, so 3% of 110 kilograms is where you get the 3.3 kilograms.

In terms of other science and the report in particular that references 7 kilograms to 9 kilograms, I remember that one quite well, because it was quite easy to read. The researchers indicated that 9 kilograms per day was required for female seals—because they carry young, they need more food—and 7 kilograms for males.

That particular study also went on to include the types of prey fish that were being eaten. Fatty fish like herring, mackerel and capelin would generate 2,000 calories per kilogram, and lean fish and whitefish would generate 1,000 calories per kilogram. Depending on the type of fish and the availability, it influences the amount, but if you study the numerous reports that are out there on seal diet right across the international community, you will see variability.

To give an example of stationary seals in an aquarium, SeaWorld reports that they need 5%. If they're in the wild, you can assume that they would need more food than seals in an aquarium.

Mr. Clifford Small: Canada collaborates internationally on all types of science. In our recent pandemic, we relied on international science.

Why can't DFO collaborate with other North Atlantic countries, which share the same ocean, to come up with better science?

Mr. Robert Hardy: That's a very good question. Collaboration is certainly needed. We need to look at what other countries are doing.

You indicated the prolific fisheries that are in Scandinavia, particularly Norway and Iceland. Very seldom do you hear of resource crises. These countries do not have the seal population problem that we do here in Canada.

When I refer back to the Norwegian report and the graph that I showed earlier, I had an opportunity to question that particular scientist. I asked him if he can see seals from the coastline of Norway. He answered no. I asked him, if they had eight million seals for 30 years around their coastline, what would be the impact on the fishery? That particular scientist answered to me in the presence of the other Atlantic seal science task team members that they would have a very big problem.

MP Small, I don't know why we don't look harder and look more quickly at what's being said around the world.

Mr. Clifford Small: Mr. Hardy, I have a question for you. Harbour seals in the gulf and on the south coast of Newfoundland and Labrador are still listed as species at risk. We don't know how many there are. The hooded seals haven't been counted since 2015. The science that's being committed to knowing how much seal predation exists is very lackluster. In the opinion of stakeholders, it's disgusting.

In your opinion, with your experience on the task team, is DFO doing all it can to know how many seals are out there and how much they are consuming? Do they really want to know?

● (1235)

Mr. Robert Hardy: You know, there's no excuse that after 30 years we don't know how many seals are out there. Each different species should have been counted by now. They should have been counted multiple times by now. In order to know the impact, you need to know how many there are. You need to know the daily diet. You need to know their spatial distribution. These are all things that DFO science needs to focus on.

If you're from Newfoundland and Labrador, it's basically been a conflict between the industry, fishers and our DFO science when it comes to talking about seals and discussion on seals. You can do any type of search and you'll find the statements from our DFO science; basically, they go against what industry is saying. There needs to be more dialogue. There needs to be more openness and more transparency.

We've had regulations on our fishery throughout Atlantic Canada and very little fishing activity. If you have a moratorium for 30 years and you don't have a northern cod recovery, why is that? You have to ask yourself why. You know, 12,000 tonnes is not a fishery. I've been to Iceland many times. Most plants in Iceland process 20,000 tonnes individually. Norway has a quota of around 900,000 tonnes annually of cod. They don't have a crisis, but they don't have a seal problem. Iceland has 25,000 seals.

We need to look hard. We need to know how many seals are there. In the case of harbour seals, we need to get into the rivers. I can show you hundreds of photos of hundreds of seals living in a river year-round. I've had DFO science tell me they have no impact on salmon populations. That's not true.

We need to find the answers.

The Chair: Thank you, Mr. Small.

We'll now go to Mr. Hanley for five minutes or less, please.

Mr. Brendan Hanley (Yukon, Lib.): Thank you, Mr. Chair.

Thank you to all of the witnesses for appearing here today.

Certainly one of the interesting themes out of this is what does science mean? Are we all arriving at a common understanding of what science is—science as an exercise to integrate knowledge and evidence from all available sources without bias? It is on that theme that I have a few questions.

Mr. Trites, I was really interested in your recommendations around research clusters. I want to bring that out a bit more. I wonder if you could describe how a research cluster might work. Maybe you could use the example of how that might work with Pacific salmon in particular.

Dr. Andrew Trites: That you for the question.

The idea of a research cluster is to get the advice from those who fish, those who do research, those who do management and those who do cutting-edge research.

In terms of salmon, I'll give you an example. We were doing a study on killer whales, asking whether or not there is enough salmon to support southern resident killer whales. What struck me was that we held small workshops with sport fishing guides. Their knowledge of salmon far exceeded the knowledge I had obtained through scientific papers. They were instrumental in helping us design a study, along with whale-watching companies, and we put the two sets of data together. We found when we did our study that there was in fact four to six times more salmon available to the declining southern resident killer whale population than to the growing northern one.

To my mind, that's an example of where you can use the expertise of different stakeholders to help guide science, help design the studies and end up with results that one can collectively accept.

Mr. Brendan Hanley: Thank you.

Dr. Rangeley, at the end of your five minutes you mentioned a better bringing in of the indigenous perspective and indigenous knowledge. I wondered if you could elaborate a bit on how you see doing this.

● (1240)

Dr. Robert Rangeley: I think that's an important question on the methodology. While we have a number of commitments in Canada around indigenous reconciliation, and including indigenous knowledge systems in decision-making, there seems to be no real clear pathway for inclusion. I think very clearly—and I think everyone would agree—that in terms of understanding evidence from a long temporal scale from indigenous communities on the water through programs such as the guardian and watchmen and from other kinds of sources of evidence, there are valued contributions that should apply to the evidence around decision-making.

What I would ask is that this committee and the Department of Fisheries and Oceans be cautious of tokenism around how that kind of knowledge will be used or incorporated and figure out mechanisms to co-manage and co-govern with our indigenous peoples.

Mr. Brendan Hanley: Thanks.

Mr. Sean Jones, I know you spoke earlier on the co-governance perspective, particularly with the regulatory hat. I wonder if you could maybe further elaborate on the implementation of co-governance and incorporating indigenous knowledge.

Mr. Sean Jones: I think co-governance, or what DFO sometimes calls “collaborative governance”, needs to be implemented by agreements with clear terms of reference. My fellow witnesses have talked about an indigenous perspective, and in particular with traditional knowledge of indigenous communities. That's very important to integrate, but I think we need to remember that indigenous communities have their own scientific advisers, and they bring that scientific perspective to bear as well. That is a way of countering some of the inherent conflicts of interest in the process where we have an overrepresentation of industry.

Bringing indigenous folks to the table in a meaningful way, particularly in the CSAS process, would not only balance that presentation of the evidence but also help DFO fulfill its constitutional duties to consult and accommodate first nations.

The Chair: Thank you, Mr. Hanley.

We're out of time.

Mr. Brendan Hanley: Thank you very much.

The Chair: We'll now go to Mr. Perkins for five minutes or less, please.

Mr. Rick Perkins: Thank you, Mr. Chair.

My first question is for Mr. Hardy.

Mr. Hardy, I'd like to talk about seals, surprisingly. I asked an Order Paper question in the House of Commons on the stomach content of seals.

The minister recently patted herself on the back in Newfoundland for stating the obvious, that seals eat fish. She somehow thought that was a revelation. Apparently they did at DFO; they thought it was a revelation.

I asked for the stomach content sampling by DFO, not specific to any province, since 2017 and all the details. I have 122 pages of the DFO response of June 10, and 107 of 122 pages are from Newfoundland and Labrador. There are a few pages on New Brunswick, but no sampling in Nova Scotia, Quebec and British Columbia.

I'm sure you'll be shocked to learn that, of all that sampling, on the findings pages, it says that what was in the stomachs was “not available”. It took them anywhere between three to nine months to analyze the stomach samples, and in their report to Parliament, they're not willing to disclose what's in the stomachs. Maybe they did find Alberta beef and don't want to contradict their minister that seals eat fish.

My question for you is this. On the seal task team, did you get access to any data on the stomach contents of seals?

Mr. Robert Hardy: Yes, we did have a number of presentations by DFO scientists on a variety of species of fish and what was found.

If I could, Mr. Perkins, I'd just like to explain something to the people here.

Last year during COVID, we were following what was happening in terms of stomach sampling in Newfoundland. The protocol here in Newfoundland has been to use the same fishermen year in and year out, for a decade or more, from the same community, and at the same time of year, in the winter months of December and January.

Now, what I am about to say is probably a bit shocking, but I'm going to say it. I spoke personally to the fishers who collected the stomachs. These stomachs were left in the fishermen's boats, or right out on their wharves, for a period of months before they were collected by DFO. That's hard to believe, but it's factual.

I thought, well, maybe that's due to COVID. Maybe this is not the normal practice. But when I asked, they told me, no, this is what happens.

So in terms of stomach sampling and how to determine what a seal eats, if we were using fisher science, and fishers were trained to document what was in the stomach when it was freshly taken on board.... They can easily see and identify a herring, a capelin or a mackerel, because when the stomach is fresh, the fish are also fresh.

Can you imagine the degradation of the stomach after being left unrefrigerated for weeks and months on end? Yes, you can do chemical analysis later. Yes, you can determine that there was a codfish there. But I think the stomach analysis from both spatial representation and seasonality....

To say that there is no stomach analysis in Nova Scotia or Quebec is crazy. This can be done. Industry wants to do that tomorrow. They want to start this program tomorrow. They want to take seals—

● (1245)

Mr. Rick Perkins: Thank you. I have just a little time left here.

That is shocking, but it is consistent. Some of these numbers are from 2017, where it says it took them nine months to get to the stomachs.

In the rebuilding plans of DFO, in the integrated fisheries management plans and recommendation three, you talked about including seal predation. I take it from your responses that seal predation is not part of it. Is seal predation part of the modelling of our fish stocks in Atlantic Canada, or, for that matter, in British Columbia?

Mr. Robert Hardy: I think it comes under the broad term of "natural mortality". We see a large percentage of unknowns when it comes to natural mortality. What happens to a smolt when it leaves the river? We're seeing fewer and fewer salmon returning. Are they caught elsewhere? Do they become prey of another fish species? Or are the seals, which are found in most rivers, taking a piece of it?

In terms of—

Mr. Rick Perkins: Sorry. I have one more question—

The Chair: No, I'm sorry, Mr. Perkins. You're 40 seconds over as it is. It would be punishing somebody else for you to speak any longer in this time slot.

We'll now go to Mr. Hardie for five minutes or less, please.

Mr. Ken Hardie: I think Mr. Perkins and Mr. Hardy punished lunch a little bit.

Voices: Oh, oh!

Mr. Ken Hardie: Mr. Young, you said something that I think deserves to be put up in bright lights. It was about the DFO acting as an "arbiter" versus a "regulator". We've seen a number of examples of consensus-building on science, which includes stakeholders, who, by the very definition of that word, have a bias.

Should the conflict resolution piece be taken out of the DFO?

Mr. Jeffery Young: At some level, yes. There are a number of layers to this. The conflict of interest piece is particularly troublesome.

Ultimately, without clarifying what they are supposed to be doing and then having a mechanism to ensure that we're reporting on their success in doing that, it's just too easy to naturally move into a mode where we try to present what we do as consistent with what has been asked of us, and to remove that accountability where we can, and then ultimately we're not allowed to fail.

Without a measuring system to deal with that, this is the natural tendency. I don't actually fault the department for moving in that direction.

● (1250)

Mr. Ken Hardie: Unfortunately, for reasons of time, I'll have to move on.

Sean Jones, in Ian Bailey's article in The Globe and Mail, quoted Kevin Lamkey, the communication director for DFO, talking about the delay in releasing the science on PRV. He said in a statement that "under the Aquaculture Collaborative Research and Development Program all authors must agree to the contents of the paper before it is released". As a result, in this particular paper's case, the delay was 10 years.

Again, on this business of collaboration, of course it's necessary, especially in the interests of a fair process, but are we being well served when, in the interests of collaboration, we end up with consensus that is often defined as the lowest common denominator agreement? Is this serving us well here?

Mr. Sean Jones: No, it's not, and that's an example of DFO's not affording the legal rights that it had available to it. The collaboration agreement between DFO and those industry veterinarians said that they could not delay publication for more than one year.

The information commissioner found that the intellectual property provisions of the agreement were extraordinarily broad in DFO's favour. My understanding is that Dr. Miller-Saunders volunteered to publish the paper independently and not use any of the intellectual property of the co-authors. DFO still withheld that information, in this case because they essentially gave industry a veto over what research could be released.

There are two problems there. One is these types of agreements with industry on collaboration. The second is how DFO managers selectively choose to ignore the powers that they have under those agreements to allow scientists to publish their work independently.

Mr. Ken Hardie: Dr. Rangeley, I haven't asked you a question yet.

Are we being well served by the CSAS model? Is the necessity to collaborate and come up with consensus holding back valuable research that, sure, could be challenged, but that challenge process is something that would be far more valuable to the public interest than just everybody off in a room somewhere and deciding what it is?

Dr. Robert Rangeley: Thank you. Absolutely, we have to follow the science, the best available evidence.

With the CSAS process, our concern is about the timeliness of that information. It presumes that individuals who aren't in the room during a CSAS meeting, for example, have nothing to add to the evidence. It also assumes that they are not affected by the consequences of the CSAS science process, and it's particularly concerning when the minister takes on that information and makes a decision, for example, on a stock that affects individual fishermen who did not see that coming. The previous question on mackerel was an example of that.

We're not seeing the evidence come through, and I would certainly take the opportunity to say that much of the evidence that's coming to the minister is quite opaque—that is, the basis on which the science decisions are being made, and they're not necessarily following CSAS. I would call attention to the recent decision to roll over the capelin quota, whereas not only did we not have evidence, but there's also clear evidence of a collapse of that fishery. It hasn't thrived for 30 years, yet there's no transparency on that availability of information.

I'm not advocating that consensus model, but rather a sound process on which the evidence that the minister is making decisions on is transparent. That's why we put in our recommendations something like a report to Parliament like they do in the U.S. in their reports to Congress. Accountability, responsibility and transparency are sorely lacking in many of the decision-making processes.

The Chair: Thank you, Mr. Hardie.

We'll now go to Madame Desbiens for two and a half minutes, please.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

My question is for Christopher Jones, formerly of the DFO.

You may not be aware, so I'm letting you know that the National Assembly of Quebec has unanimously passed a motion calling on the DFO to compensate fishers who are victims of the sudden, unexpected decision to close the herring and mackerel fishery.

Based on your past experience, would you tell me how the DFO goes about this? How do they come to such a quick decision without telling the fishers?

Of course, the DFO manages fisheries, but we must never forget the human factor when making decisions.

Can you shed some light on that for me?

● (1255)

[*English*]

Mr. Christopher Jones: Yes. I'll try to be brief.

The past experience of compensation came from a different source. The most notable is northern cod, where the fishery was essentially closed for some 30,000 people. In this instance, there was an unexpected notification. I think the fact that there wasn't a lot of dialogue between the department, science, management and the industry caused a lot of unexpected angst within communities.

Once one sets the precedent of compensation, the response for compensation can be in many forms. It can be in the form of science commitments or other alternatives. It has many aspects. That has yet to be worked out.

That also applies in instances of marine protected areas, where fishermen are now being shut down. They're looking for compensation and the department is telling them that there's no mandate to provide that.

It's a bigger issue and it's one that I would expect needs to have a dialogue on. It's become a political issue. I hate to turn it back to you, but I think that's where we are on it.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Jones.

[*English*]

The Chair: Thank you, Madame Desbiens.

We'll now go to Ms. Barron for two and a half minutes or less, please.

Ms. Lisa Marie Barron: Thank you, Chair.

I was hoping to ask a few of our witnesses today a similar question.

Mr. Young, you wrote a sixth recommendation in your submission—you spoke about it as well—about the restructuring of DFO where necessary to support these changes and to remove conflicts of interest. I'm wondering if you could expand on that a bit and what that might look like. What would you recommend?

Mr. Jeffery Young: It's a complex topic, but I'll give some high-level overview.

We need to separate science adequately and ensure that science advice is being presented in a clean and unbiased format publicly and directly to the minister. We need to ensure that science advice and recommendations are delivered to the minister without interference.

Ultimately, there are many different ways we could do this. We used to have the Fisheries Research Board of Canada, which was more distinct scientifically than the management itself. That is a model we could explore.

Ms. Lisa Marie Barron: Thank you.

Could I ask the same question to Mr. Sean Jones, please?

Mr. Sean Jones: I would echo the comments of my fellow witnesses. I think that DFO managers need to allow scientists to communicate directly with those decision-makers and allow the briefing notes and materials that they prepare to go unadulterated to the minister.

We've documented numerous examples where scientists are trying to get critical information to the minister, but DFO managers simply interfere and rewrite the materials, so that the science that is presented is done in a way that confirms existing policy, rather than presenting the minister with the best available information.

Ms. Lisa Marie Barron: Thank you, Mr. Jones.

I want to see if I can also get a comment from Mr. Trites in my two and a half minutes. It's overly optimistic, I realize.

Dr. Andrew Trites: Thank you.

I think there's often a disconnect between science and management. Science is a bottom-up process. Management seems to be top-down. I feel that, in many cases, the two are not talking together. It would be a much better process if the managers built relationships with the scientists, and then the scientists would have a better understanding of what the questions are.

The way I observe it, on the outside, is that there's a disconnect between science and management.

● (1300)

The Chair: Thank you, Ms. Barron.

We'll now go to Mr. Small for five minutes or less, please.

Mr. Clifford Small: Thank you, Mr. Chair.

I have a question for Mr. Young.

Mr. Young, do you eat fish?

Mr. Jeffery Young: Yes, I do.

Mr. Clifford Small: Do you see our oceans as having a role in supplying healthy, organic protein to the world?

Mr. Jeffery Young: Yes.

Mr. Clifford Small: Do you know the difference in the productivity of Norway's ocean versus Canada's ocean, per square mile?

Mr. Jeffery Young: No.

Mr. Clifford Small: The figure is that it's 7.5 times more productive per square mile.

I heard you say in your opening remarks that harvesting seals would have no impact on restoring the productivity of our ocean and bringing back balance. We've been managing our ocean for quite a long time already. This wouldn't be the beginning of managing our ocean.

If harvesting pinnipeds can't help restore fish stocks, I have another question. If the seal population doubled or tripled, what would they eat? Would that have an impact on the fish stocks?

Mr. Jeffery Young: My answer is simply that these systems are highly complex. Salmon predate on numerous species, some of which are both competitors and predators of target species, and the ability to predict what would happen in that instance is very difficult to do.

Mr. Clifford Small: If there were a continued population explosion, if the population continued on the trajectory that we have, would that have an impact on fish stocks, do you think?

Mr. Jeffery Young: It would be an alteration of the ecosystem. I think it's hard to predict whether something like that is going to happen and, if it did, what it would do to the broader ecosystem.

Mr. Clifford Small: I think you agree that it would consume a lot of fish.

If we brought that population down through sustainable ethical means, we'd be able to supply more healthy organic protein to the world, wouldn't you think?

Mr. Jeffery Young: No, I don't think that's clear. I think that we don't actually know (a) whether we're capable of effectively reducing those populations to a level that would make a difference that we want to have, nor that we understand well enough whether the difference that would create is one that we would want.

Mr. Clifford Small: Am I allowed to ask someone if they've been careless with the truth, like my father would say?

The Chair: Your five minutes are yours. Again, choose your language.

Mr. Clifford Small: I have a question for Mr. Young about an email that went around to all MPs stating that Bill C-251 was asking for a cull. Can you tell us which clause in that bill is asking for a cull?

Mr. Jeffery Young: I think we might characterize a cull as the intentional killing of a species under the assumption that it will benefit another one in a predatory context.

Mr. Clifford Small: My next question is for Mr. Hardy, if I have any more time.

In your recent experience at the Atlantic seal science task team, how co-operative was the DFO science department with your team?

Mr. Robert Hardy: The team was co-chaired by DFO management. We got good co-operation, and those who presented provided co-operation. I don't think there was anything being held back there. A lot of us understood the situation locally. Overall, we've commented and we've made recommendations.

The one that seems to be sticking right now is a forum or summit. I'm not sure if you guys got the information I sent, but I did include a very detailed list of the summit's forums and committees on seals prior to 1992 up until today. I'm sure that most of you there are getting a bit tired of listening to and talking about this, but nothing has been done.

In terms of co-operation, we need co-operation on action. We don't need more dialogue.

Mr. Clifford Small: If I have any more time left—

The Chair: Thank you, Mr. Small.

Mr. Clifford Small: Thank you.

The Chair: I would like to get one more questioner to even it out.

We will go to Mr. Morrissey for the remaining time of probably four minutes.

Mr. Robert Morrissey: Thank you, Chair.

Mr. Young, you made an earlier statement that artificially controlling or controlling ecosystems has failed. Could you quickly point to an example?

● (1305)

Mr. Jeffery Young: The one I reference in my document is salmon hatcheries, where the assumption was that we would improve overall abundance and generally improve the health of Pacific salmon.

Unfortunately, the latest science is showing that those hatcheries themselves have a direct impact, that hatchery fish are not the same as wild fish and that continued efforts to move in that direction could be more problematic for wild salmon than beneficial.

Mr. Robert Morrissey: Okay.

I have a question for Dr. Rangeley.

You made a comment about using science to rebuild stocks, but that may conflict or does conflict with fisher science. Could you broaden the terminology? Because that's what we hear constantly: The fisher science or the fisher knowledge is often in conflict with the DFO science.

Dr. Robert Rangeley: I'm not sure exactly where you're going with this, but very clearly, there's useful information from all sorts of quarters...people that are on the water. It's very important, but we do have to follow science. We have to be very clear with our goals and how we're measuring the outcomes of that information. Oftentimes, anecdotal information is extremely valuable.

I think Professor Trites mentioned a process he was involved in, where it provides an input in a way that is tremendously valuable, but in the end, the department has to be really clear on its goals and what it's trying to accomplish, follow the precautionary approach and manage risk and uncertainty, in a way, because we won't have all the science. When there's contradictory evidence coming forward, yes, it has to be factored in, either in asking better science questions or additional questions or in accepting that it is part of the uncertainty and then managing with greater precautions when we don't know what's happening with the population.

I hope that answers your question. I wasn't quite clear.

Mr. Robert Morrissey: Yes, it does.

Further around that, when science conflicts with fishers' knowledge or science, what option, then, would you suggest be used, from your professional background?

Dr. Robert Rangeley: Fisher knowledge and fishery representatives have ample opportunity to participate in the process to question the scientists, in something like a CSAS stock assessment meeting. They are frequently, and have been for years, active participants in the process. I think we need to follow that process.

What we can't abide by is second-guessing and anecdotal information coming after the fact. We have to be really clear on what the process is and follow a precautionary approach. Remember, the whole point about rebuilding our fisheries is for the future. Often where the confusion occurs is on short-term benefits versus long-term gain. We continually make the mistake of saying we can catch more fish today at the expense of our grandchildren.

Rebuilding means taking into account both spatial and temporal scales. The value in our fisheries is underperforming. We can get much more value out of our fisheries if we allow them to rebuild. The models clearly show that. History shows that. We have this short-term view and what's called a shifting baseline. We just think we can catch more fish every day and every year and fight over annual quotas. That's an absurd way to manage a fishery, to think from annual quota to annual quota.

We need a vision from our department. We need a vision for Canadians, for rebuilding our oceans. They're tremendously underperforming. Only about 30% of our fisheries are healthy.

Mr. Robert Morrissey: Thank you.

Perhaps I can get in a quick final question to Chris Jones.

You talked about two-tiered science. Just quickly, what were you referencing, Mr. Jones, when you referenced two-tiered science? I believe that was in reference to DFO science.

Mr. Christopher Jones: Yes, thank you.

The issue is in the Maritimes region, where we have high-profile fisheries receiving more direct science support and other fisheries that are not high profile receiving very little to practically no science support. That's the two-tier approach. I would expect that it evolved back in 2012 from an issue of limited resources. It has been retained, so we have fisheries that are essentially operated—

● (1310)

Mr. Robert Morrissey: Did that come from cutbacks in the department?

Mr. Christopher Jones: I think it was from having limited resources. They had to make a decision. They were going to put science, shotgun, across a broad scope in which everybody got a little piece, or they were going to focus science in the higher-profile fisheries such as crab, lobster and halibut. We now have fisheries that have very little to no science involved, depending on their profile.

The Chair: Thank you, Mr. Morrissey. You've gone well over time.

I see that Ms. Barron has her hand up. Is that on a point of order?

Ms. Lisa Marie Barron: Yes. Maybe I could just ask something quickly before we end the meeting, as we have all of our witnesses here today. There was a statement made and I'm wondering, through the chair, if my colleague could clarify it. I can't remember the exact wording of it, but it was about the misrepresentation of truth in relation to information that a witness was referencing today. I'm wondering, through the chair, if that member could clarify specifically what was being said. I want to ensure that we do not leave a meeting with an accusation of a member misrepresenting information. I think it's something that's worth clarifying.

The Chair: Okay. I don't recall which member referenced this.

Mr. Clifford Small: I did.

The Chair: Okay. Do you want to respond, Mr. Small? It's entirely up to you.

Mr. Clifford Small: Absolutely. Thank you, Mr. Chair.

If I said that Mr. Young had been misleading, what I in fact meant to say was that the group that Mr. Young is representing misled MPs by insinuating that Bill C-251 is calling for a cull. There's no such clause in that bill. I just saw an email that went to MPs. I don't know why it didn't come to me, but it went to MPs from the David Suzuki Foundation.

The Chair: I haven't seen it.

Again I'd remind people to be careful with the words you choose. As the Speaker of the House often says, words are what they are.

That closes our session for today. Thank you to all of our witnesses who appeared, both in person and virtually, and who shared their knowledge with the committee today. I know it's valued knowledge and it will certainly add to the report at the end of the day.

I would just quickly remind members to make sure that your phones are on silent when you're in the committee room, because there's nothing worse when somebody is speaking either virtually or in the room and somebody's phone buzzes or dings or both. I've been guilty of it myself at times, but I think we all know how to silence them completely and still get the messages if we want to get them.

I want to say a big thank you to our interpreters today for doing a wonderful job and for their patience, and to our analyst, our clerk and, of course, to all of our own individual staff for making this a success today.

The meeting is adjourned.