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# Standing Committee on Fisheries and Oceans

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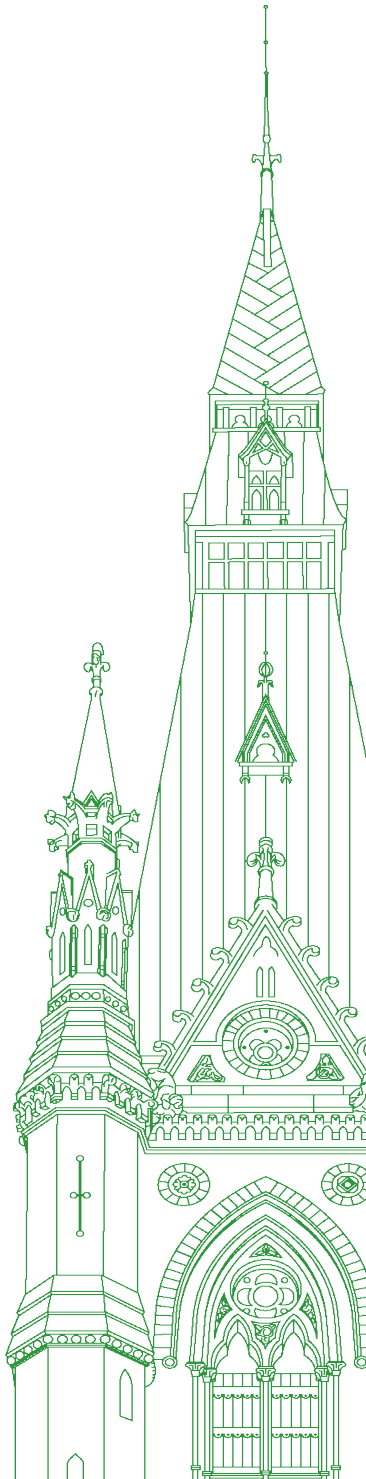

Chair: Mr. Ken McDonald

# Standing Committee on Fisheries and Oceans

**Tuesday, August 11, 2020**

● (1205)

[*English*]

**The Chair (Mr. Ken McDonald (Avalon, Lib.)):** I call this meeting to order. Welcome to meeting number 14 of the House of Commons Standing Committee on Fisheries and Oceans.

Pursuant to the order of reference of Tuesday, May 26, 2020, Standing Order 108(2), and the motion adopted by the committee on Tuesday, February 25, 2020, the committee is resuming its study of the state of Pacific salmon.

Today's meeting is taking place by video conference. The proceedings are public and are made available via the House of Commons website. So that you are aware, the webcast will show the person speaking rather than the entirety of the committee.

Regular members know this by now, but as reminder, and for the benefit of our witnesses who are participating in a House of Commons virtual committee meeting for the first time, I should remind you of a few rules.

Firstly, interpretation in this video conference will work very much like it does in a regular committee meeting. You have the choice, at the bottom of your screen, of floor, English or French. As you are speaking, if you plan to alternate from one language to the other, you will need to also switch the interpretation channel so that it aligns with the language you are speaking. You may want to allow for a short pause when switching languages.

Before speaking, please wait until I recognize you by name. When you are ready to speak, you can click on the microphone icon to activate your mike.

Should members have a point of order, they should activate their mike and state that they have a point of order.

If a member wishes to intervene on a point of order that has been raised by another member, I encourage him or her to use the “raised hand” function. In order to do so, you should click on “participants” at the bottom of the screen. When the list pops up, you will see that next to your name you can click “raise hand”. This will signal to me, as chair, your interest in speaking, and it will keep the names in chronological order. When you are not speaking, your mike should be on mute.

The use of headsets is strongly encouraged.

Finally, when speaking, please speak slowly and clearly.

Should any technical challenges arise, for example, in relation to interpretation or a problem with your audio, please advise the chair immediately and the technical team will work to resolve them. Please note that we may need to suspend during these times, as we need to ensure that all members are able to participate fully.

Before we get started, can everyone click on their screen in the top right-hand corner and ensure that they are on gallery view? With this view, you should be able to see all the participants in a grid view. It will ensure that all video participants can see one another.

I would now like to welcome our witnesses today.

With us, we have Alexandra Morton, independent biologist, Pacific Coast Wild Salmon Society. We have Ken Pearce, from the Pacific Balance Pinniped Society. We have Dustin Snyder, director, stock rebuilding programs, with the Spruce City Wildlife Association.

As well, we have somebody appearing as a witness who we're used to seeing sit at the other side of the table and for whom I'm sure we all have the most utmost respect. Fin Donnelly is chair of the Rivershed Society of British Columbia.

Of course, joining us today from the Green Party, we have Ms. May, member of Parliament for Saanich—Gulf Islands.

It's great to see you as well, Ms. May. Again, I'm sure you have all of our highest respect.

We'll get started now.

Ms. Morton, you have six minutes or less, please.

**Ms. Alexandra Morton (Independent Biologist, Pacific Coast Wild Salmon Society, As an Individual):** I'm speaking to you from 'Namgis territory, here on the Fraser sockeye migration route, and I want to start by saying that I'm grateful for the Government of Canada's response to COVID-19. There is no other country I would rather be in right now.

For the moment, policy is keeping pace with emerging science on an emerging virus. However, this not the case when it comes to salmon runs of national importance. If fishing were the dominant extinction driver for salmon runs, the fact that most salmon fisheries have been increasingly closed over the last few years would have caused the salmon runs to increase. As well, in one of the most heavily farmed regions of the coast, the Broughton Archipelago, wild salmon are declining in the unlogged and logged watersheds.

For some reason, the Canadian government is ignoring critical warnings that salmon farms are harming wild salmon runs. These are coming from the Auditor General's office; Dr. Mona Nemer, the chief science adviser of Canada; and Stephen Harper's Cohen commission, which recommended that salmon farms be prohibited from the Discovery Islands unless Minister Bernadette Jordan can demonstrate, by September 30 of this year, that the risk from the farms is minimal. However, this is not going to be possible for her.

Last fall, then minister of fisheries, Jonathan Wilkinson, announced that the 2019 sockeye return was the lowest in the history of this country; yet on March 1 of this year, DFO granted salmon farms permission to have an unlimited number of sea lice. Predictably, 99% of the young Fraser sockeye on the migration route were infected with sea lice levels that we know will reduce their survival. Wild salmon are simply not making it to sea past the salmon farms.

On July 30, we found out the sockeye trying to go by Port Hardy were infected with an average of 42 lice per fish. These fish are 10 centimetres long, with 42 lice. If this continues, there will be nothing you can do to boost their survival. You have to deal with the salmon farming issue. The sockeye infected with sea lice this year are the dominant cycle. This is the fish the Fraser River nations and commercial fisheries depend on, and we will know the outcome of this infection in 2022.

Then there's the situation with the piscine orthoreovirus, or PRV. One DFO lab says this virus is natural to British Columbia, it's low risk and not to worry about it, but another DFO lab is saying it's a significant risk to Pacific salmon. Academic research is saying that it is not natural to the B.C. coast, as it's from the Atlantic. My research is saying this virus is spreading.

In 2018, Washington state prohibited PRV-infected farmed salmon because they are too big a risk to wild salmon. As a result, the farms in Washington state are standing empty because there are no clean fish for companies to access to put into the pens. Here in B.C., the industry told the Federal Court of Canada that it would be significantly impacted if it was not allowed to farm with PRV-infected salmon, so DFO policy has decided that the virus is natural and low risk. If you don't see a scandal here, it's because you're not looking.

Salmon farms are the greatest single impact on wild salmon since the glaciers, and this impact is entirely removable. The one place on this coast where sea lice are going down is the Broughton Archipelago, where first nations have removed several million farmed Atlantic salmon.

Here are my recommendations to you. You should create a Pacific region director of wild salmon. We need somebody at a senior management level in DFO whose whole life is focusing on restoring wild salmon, and this must be done in partnership with first nations. You should mandate the removal of salmon farms from the ocean, beginning with the biggest migration routes. This would attract significant land-based investment because the infrastructure for this industry is already there.

● (1210)

Also, please harness the remarkable science in DFO that can read the immune system of fish, allowing the fish to talk to us, to tell us where and how we are hurting them, and whether we are making that better or worse. Then the fish themselves will guide their own restoration.

If Canada follows this path, truly meaningful reconciliation begins. We jump right into the fight against climate change by significantly increasing the annual growth in forests and every fishing country in the world will come to Canada to learn how we did this.

Thank you so much for allowing me to be here.

**The Chair:** Thank you for that.

We'll now go to Mr. Pearce for six minutes or less.

**Mr. Ken Pearce (Pacific Balance Pinniped Society):** First, thank you very much for having me on. I consider this an honour to represent over 300,000 British Columbians who are very concerned with the rapid decline in our salmon stocks. My focus is the decline in chinook, coho and steelhead. All the studies that I've been using are based on the Gulf of Georgia and the Salish Sea.

My background is that I commercially fished from 1962 to 1967, longline halibut and seined salmon, on one of the top boats of the coast at the time. My venture paid my way through UBC. I'm an avid sports fisherman, having fished most rivers in B.C. for both salmon and steelhead, and I'm very active in both fresh and saltwater sports fishing. My grandsons are the fourth generation involved in sports fishing. My son seined on the *Queens Reach*, one of the top boats on the coast, for nine years and is now working for DFO Nanaimo under Wilf Luedke.

For 40 years our family has had a hunting shack on Canoe Pass at the mouth of the Fraser River, and we're very tuned in to what is happening to the lower Fraser.

Let's go on to the focus of the Pacific Balance Pinniped Society, which is pinnipeds on the British Columbia coast and their impact on the outbound juvenile chinook, coho and steelhead smolts and inbound adults. Our mission is restoring the balance of pinnipeds to help bring back our salmon.

Our supporting science, number one, is Brandon Chasco and all of the National Oceanic and Atmospheric Administration, NOAA. There's also our Pacific Salmon Foundation and their Salish Sea marine survival project. Dr. Carl Walters of UBC is a very strong supporter of our group, as is Ben Nelson of UBC.

I'm also quoting articles published in the Columbia Basin Bulletin and data from Peter Olesiuk, retired DFO, who did all the counts on the pinnipeds and our integrated fisheries management plan, IFMP. It is too long to go over here; that was presented to DFO some two and a half years ago to deal with this problem, and we're making very little progress inside DFO.

I want to say special thanks to Mel Arnold for getting involved in this. He's been a great help in getting us to move along.

For those who aren't dialled in, I'm going to just quickly go over some stats here on the pinnipeds, and these come from Peter Olesiuk's publications. Seal population at the start of protection under the Marine Mammals Protection Act in 1972—and this is all related to the Gulf of Georgia—was 7,000. The current population is 48,000. Steller sea lions in 1972 were approximately 10,000 and, coast-wide now, there are 48,000. As for California seals, I have an estimate only as there are no detailed studies available, and that is 20,000.

Smolt consumption by pinnipeds is our main focus. Consumption, as stated by the Pacific Salmon Foundation's Salish Sea marine survival project, is 30% to 45% of smolts, lower for chinook and higher for coho. Chasco of NOAA and King Salmon Forever studies show up to 80% consumption of chinook smolts. These studies show a consumption rate of approximately 27 million chinook smolts per year and 10 million coho smolts per year. No data is available on steelhead outbound smolts, although the stock has extremely depleted in the last 15 years and, as witnessed by the Thompson and Chilcotin runs, the run is almost annihilated.

If this consumption was cut by 50%, and using historical long-term survival rates of adults of 3% to 5%, which is currently 1% with the huge pinniped populations, what might this mean for helping restore our chinook and coho populations? As an example, I used an average of the above studies and used a consumption rate of 60%.

● (1215)

The math shows the following: 27 million chinook smolts, times 60%, equals 16,200,000 more survivors, times the 3% survival adults, is 486,000 more chinook adults, which is for the Gulf of Georgia system only.

Applying the same math to the 10 million outbound coho smolts per year is a return of 300,000 more adults.

Regarding adult consumption of chinook, the only current studies I could find were published by the Washington Department of Fish and Wildlife. The results are the following: three to five returning adults are eaten per day on the Columbia River. With up to 5,000 sea lions on the Columbia, this adds up to 15,000 to 25,000 adults per day.

I can't find any studies on in-river consumption on the Fraser River for either seals or sea lions, but my guesstimate on adult consumption by seals in the Fraser might go as follows: 5,000 in-river seals times two chinook per week equals 10,000 per week.

The same logic would apply to both coho and steelhead adults in river.

I'm just quickly going to bring to light some additional studies supporting this—

● (1220)

**The Chair:** Thank you, Mr. Pearce. Your time has gone well over the six-minute mark.

If your speaking notes were provided to the chair, I'm sure we'll all have access to them. Anything that didn't come out hopefully will come out in the questioning in a few minutes, so I thank you for that.

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

**Mr. Dustin Snyder (Director, Stock Rebuilding Programs, Spruce City Wildlife Association):** Thank you, Mr. Chair.

Today I will be speaking about the state of salmon in B.C. using my experience with the upper and middle Fraser spring and summer chinook. Unfortunately, I'm here to tell you today that this is not a new problem. The residents of the upper Fraser have been watching salmon populations fade into memory for close to two decades.

Salmon populations that triggered the Cohen commission, COSEWIC assessments and the wild salmon policy have seen continued decline. The department has all but vacated our area leaving us with old science, a lack of data, and a lack of staff and resources. This has resulted in a lack of salmon that many in the department are oblivious to.

Oddly, the Big Bar landslide has become a bittersweet situation. While the slide has put another nail in the coffin of upper Fraser stocks, the upside is there is now a conversation happening. Paired with the closure of chinook fishing in many coastal communities, the rest of the province and the department at large are now noticing what the locals here have been saying for years: Salmon are disappearing.

The department, first nations, the province and community need to work together to move forward on this. No one organization will be able to do it alone. This is a complex issue. There's no silver bullet. Salmon are disappearing due to a “death by a thousand cuts” situation.

Long-term commitments will need to be made with a recovery plan and conservation targets in place or else we will see populations disappear. I will also note that some populations in the upper Fraser have already disappeared. Unfortunately, in some cases these populations were only known to exist by certain people, and they were in very small numbers. Now they're gone. If they were genetically unique, or special in some way, we will never know.

I'd like to touch on what is referred to as the “three Hs”: harvest, habitat and hatcheries. While we know that harvest has been reduced in an effort to help these stocks, many reports state that these endangered and threatened stocks in the upper Fraser show a trend that would continue to decline even in the absence of harvest. Coded wire tag data here is 20-plus years old and is known to be incomplete and not meet the requirements of an indicator stock, yet is still currently used to make decisions. Genetic information on the upper Fraser is also lacking and needs to be refreshed. Lastly on this point, upper Fraser residents have not seen an opportunity to take part in fisheries for well over a decade. Our local first nations folks see little to no harvest many years. Despite that, there is recreational harvest in the marine environment, and first nations harvest taking place on the lower Fraser on these very stocks.

Habitat is a tricky one. While the province runs the land base, the feds manage the fish. Habitat will need collaboration. In the upper Fraser, there are many areas where little to no habitat work is needed. However, these areas are vulnerable to riparian degradation. After an area's timber is harvested, or a forest fire goes through, there is no provincial strategy to grow a healthy, resilient forest that could not only provide a strong economic future but help us meet these conservation targets as well. This conversation needs to happen with everybody at the table. Even agriculture can have a large impact on the health of riparian areas.

Lastly, on hatcheries, the kinds needed for stock rebuilding are not your run of the mill, “pump out a ton of fish” hatcheries. I'm talking about conservation hatcheries that are using strategic enhancement models, including releases at multiple life stages. A knee-jerk reaction to pump out as many fish as possible, like the proposed and cancelled Willow River facility, is no longer the answer.

Building a massive hatchery in the upper Fraser is no longer going to make financial or practical sense. Stocks are so low that I believe we would need multiple small facilities. With DFO investment and advice, community and first nations partners would be able to move the facilities forward and leverage additional funding to increase these programs.

I can provide some recent numbers and a quick example as to why a large facility would no longer work. When the Willow River facility was cancelled, the Holmes River would see returns of over 4,000 chinook. It has only surpassed 2,000 chinook twice since 2003, with returns as low as 200. That was previous to Big Bar. Last year, due to Big Bar, this river has seen fewer than 30 fish return. The Chilako once held over 1,000 chinook, and in recent years has struggled to hit double digits, with a record return of 12 last year. Lastly, the Endako River, which Spruce City Wildlife and Carrier Sekani Tribal Council are partnering on to rebuild, had a habitat assessment that states it could sustain over 1,000 returning spawners, yet has averaged 30 in the last five years. Major facilities cannot operate on these small numbers. It's too late for that action.

Of course, Big Bar has again decimated these already vulnerable stocks. Climate change is altering the flows of our rivers, the water quality, the water quantity and the water temperature. Fires have removed large areas of forests needed to stop sediment and soak up rainwater and snowmelt. Better and more consistent monitoring of these situations is going to be needed or else we will see another Big Bar situation in the future, where again it will go unnoticed and again the stocks will suffer.

● (1225)

Current monitoring of stocks consists of counting the fish in some streams and charting the decline. This is a great model to manage to extinction. I will note that it's not too late to rebuild, to update the science and to make these changes to help these fish thrive, but we need to work with the fish and together, not against them and not against each other. Every year wasted will make this issue more difficult and very much more expensive.

I would like to take the opportunity to thank you all to present today as well.

**The Chair:** Thank you, Mr. Snyder.

We will now go to Mr. Donnelly, for six minutes or less.

**Mr. Fin Donnelly (Chair of the Board, Rivershed Society of British Columbia):** Thank you, Mr. Chair.

Thank you for the opportunity to present to the standing committee regarding the state of Pacific salmon. My name is Fin Donnelly. Iyim Yewyews is my Squamish name. I'm the chair of the board of a non-profit charity called the Rivershed Society of British Columbia, which I founded in 1996 after my first swim down the 1,375-kilometre length of the Fraser River, one of the greatest salmon rivers in the world.

The Fraser is a Canadian and B.C. heritage river, one of North America's most diverse watersheds, covering 10 of B.C.'s 14 biogeoclimatic zones, and is home to one-quarter of British Columbians. It fuels two-thirds of B.C.'s economy and is known as the heart and soul of British Columbia.

We have a vision of the Fraser watershed being the most resilient watershed on the planet with salmon, people and economies flourishing in river shed communities. Our mission is to conserve, protect and restore the Fraser's 34 river sheds. We call it watershed CPR—conserve, protect and restore.

We can't have healthy salmon and salmon runs if we don't have healthy watersheds. Currently the Fraser is threatened by cumulative impacts: a changing climate; over-consumption of resources; habitat destruction from urban development and resource extraction; loss of biodiversity; excess pollution; lack of regulation, monitoring and enforcement; reduced funding for watershed CPR; and impacts from open-net salmon farms.

Lack of government action on watershed CPR has left Fraser River salmon on life-support. We believe the federal government must take bold action and invest in watershed CPR now. It must work with the B.C. government, indigenous governments, scientists and academics, conservation organizations like ours, fishermen and labour groups, coastal communities and others to conserve, protect and restore salmon habitat.

I would like to recognize and thank the minister for taking action on the devastating landslide at Big Bar and making it a priority. I would also like to thank the federal government for providing the necessary resources to address the emergency at Big Bar. However, key issues remain if the downward trend of wild Pacific salmon returns is to be reversed.

The federal government must commit to bold action now before it's too late. The dire situation facing west coast wild salmon is nothing new. I remember back in 2009 when fewer than 600,000 sockeye returned after the government predicted between two and four million.

Here we are, more than a decade later. You just heard from officials. They admitted Fraser chinook and steelhead are of grave concern, and they are not expecting 2020 to be a big year for fisheries. Last year while everyone was focused on Big Bar, we had the worst return of Fraser sockeye in recorded history.

It's clear that past federal governments have failed wild Pacific salmon. At least five major commissions have been struck over the past 30 years looking at the demise or impacts to west coast wild salmon with the latest being the $35-million Cohen commission, which produced 75 recommendations, with many of the tough recommendations still not fully or properly implemented.

Some witnesses have asserted the department is broken. While I won't weigh in on that, I will say the department is a reflection of political will and leadership. Members of this committee are well aware of the problems facing west coast wild salmon, and I bet you could all agree on most of the needed solutions. Do you have the political courage to make the tough recommendations needed in your report and, as respective members of Parliament and members of different parties, can you come together to ensure the government implements them?

Members, you have heard enough testimony from witnesses to clearly recommend the action government needs to take to address the problems facing west coast wild salmon. Witnesses have pointed out the political arm of the government needs to give the bureaucratic arm a fighting chance with bold leadership, resources and support.

● (1230)

One witness clearly stated the government needs to take action, and he clearly identified a known framework, as you've just heard, for harvest, habitat and hatcheries. First, we should support science-based conservation-oriented harvest levels; act on illegal, unreported and unregulated fishing; and investigate what is taking place in international waters with regard to our Canadian wild Pacific salmon. Second, we should make a bold investment in habitat restoration and protection. BCSRIF, the coastal restoration fund and other programs are a good start, but they are inadequate for solving the problem. Third, we should address issues associated with industrial hatcheries and open-net salmon farms, and immediately transition to safe and efficient land-based closed containment.

The RSBC supports these recommendations, and we recommend that the government make a bold investment in watershed CPR, to conserve, protect and restore. To protect salmon for their entire life cycle, governments need to invest in the cause as opposed to the symptoms, and restore watersheds, protect flows and create habitat in perpetuity.

Whichever framework is used, the government needs to act now. Please take action to ensure that west coast wild salmon do not go the way of the east coast cod, and invest in making our watersheds the most resilient on the planet, with salmon, people and economies flourishing in river shed communities.

[*Translation*]

Thank you, everyone.

[*English*]

**The Chair:** Thank you, Mr. Donnelly. You went a bit over your time, but I couldn't cut off somebody I have so much respect for. I knew you wouldn't be a lot longer.

We'll now go to our round of questioning. I remind guests and members alike to please leave your system on mute if you're not speaking. It causes a lot of problems when you don't do that.

For questioning, we'll now go to Mr. Arnold for six minutes or less, please.

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

Thank you to the witnesses for being here today. Your expert testimony is valued by this committee.

I want to start with Ms. Morton.

Ms. Morton, you mentioned the Cohen commission and the Broughton Archipelago. The Cohen commission has 75 recommendations. Recommendations 18 and 19 clearly state that the Minister of Fisheries and Oceans should prohibit net-pen salmon farming in the Discovery Islands by September 30, 2020—that's this year, next month—unless the minister is "satisfied that such farms pose at most a minimal risk of serious harm to the health of migrating Fraser River sockeye salmon."

In your opening remarks this morning, you said that it's not possible for the minister to make that decision. Could you expand on why the minister will not be able to make that decision?

● (1235)

**Ms. Alexandra Morton:** It's because of the high sea lice infection rate this year, which is such a visible impact. DFO was not out on the water this year because of COVID, but my research team was. I preserved all the fish that I counted sea lice on, so if there's any question about what I recorded, the fish are in the freezer and people can look at them.

We know from published science in DFO by Dr. Sean Godwin that the lice levels on these fish—there was an average of nine lice per juvenile sockeye—reduce survival. That's a major risk for a run of fish that are headed for extinction.

**Mr. Mel Arnold:** Is the sea lice issue the only reason that's holding the minister back from making a decision, or are there other factors? You stated that the minister will not be able to make that decision.

**Ms. Alexandra Morton:** There are other factors. As I noted with the PRV science, honestly it has become so confusing within DFO. There are two DFO labs with completely opposite assessments.

Just put that aside for a moment and look at the sea lice. The minister cannot look at what happened to the Fraser sockeye this year and say that the salmon farms are, at most, having a minimal risk, because we know that what happened to them is going to reduce their survival and we know that it happened to 99% of them. That is just not acceptable, I think, to Canadians.

**Mr. Mel Arnold:** Do you believe the proof of more than minimal risk is there?

**Ms. Alexandra Morton:** Yes, I believe it is.

**Mr. Mel Arnold:** Okay, thank you.

The government has promised legislation on an aquaculture act multiple times. So far we haven't seen any draft legislation or heard much about that. It would be interesting to hear from you what you think an aquaculture act should contain.

What would it do to improve conservation of wild species and habitats and provide better regulatory certainty and consistency for aquaculture operators?

**Ms. Alexandra Morton:** I think, first and foremost, an aquaculture act has to move the industry onto land. Then they're free to grow. They won't have sea lice problems. They won't have low oxygen problems. They won't have the algal bloom problems.

Norway is pushing very hard for the industry to go onto land. In fact, they adjudicate on every land-based or closed containment application made by the industry, because they're trying to save the industry from itself. An aquaculture act in Canada should just move it onto land. Let's build a sustainable, remarkable industry that we can be proud of.

The industry has had 20 years to deal with the sea lice problem, and there's no evidence that they can deal with it. They brought in 80 million dollars' worth of boats last year and said they had it handled, but 37% of the farms this spring were over the three lice per farmed salmon limit that was set 15 years ago by government to protect wild salmon. They just can't control these sea lice in this country or any country.

An aquaculture act should protect the industry and put it on land in closed containment. Honestly, if the three Norwegians who are farming here right now don't want to do that, let's look to Canadians. Maybe there are Canadians who want to get into this industry. There are no Canadian-owned fish farms on the coast of British Columbia and maybe they want to do it.

**Mr. Mel Arnold:** Thank you.

I have about a minute left.

Mr. Snyder from the Spruce City Wildlife Association, has the wildlife association been a beneficiary of the salmon enhancement program in the past, and if so, how important was that program to the organization and the recovery or sustainability of salmon stocks?

**Mr. Dustin Snyder:** The Spruce City Wildlife Association had a partnership with SEP pretty much right from the inception of SEP. There was a funding cutback at one time, which was the same one that shut down the Penny hatchery, as well as the Quesnel River Research Centre hatchery that was in this area. That currently leaves only Spruce City left.

Right now we are the recipient of funding from the B.C. salmon restoration and innovation fund. However, besides that we don't receive any funding from SEP. We have a community adviser here and he's extremely dedicated to helping us, because we are the only hatchery in his region. Unfortunately, when we need advice, whether it's hatchery advice or upgrade advice or that sort of thing, we have to reach out of region or out of area every time, just because we don't have that advice here. We don't have those resources here.

Where that's left us with local stocks, quite frankly, is high and dry. Along with not only no programs running, only a fraction of the streams up here are being monitored and it's kind of one of those things that, when people have something to lose, it's really easy to get people involved and engaged. Since we rebooted everything in the hatchery about four or five years ago with Spruce City, it's been really interesting and really neat to tell people that there are salmon here, that salmon do swim right by the city. Previous to that, again, we've lost so much and we've lost so many stocks that those numbers just aren't there for people to see them and realize that there still is something to lose.

● (1240)

**The Chair:** Thank you, Mr. Snyder.

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

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

Ms. Morton, you've been shown the door at more than a few aquaculture facilities when you've attempted to find out what's going on. Is that still happening or are you being invited in?

**Ms. Alexandra Morton:** I'm not invited by the industry, but I am increasingly invited by first nations to help them navigate this situation. I spend a lot of time doing ATIPs, so I read the emails between government and industry. This has given me a background on what is going on and how to help the nations.

**Mr. Ken Hardie:** You say that the first nations are inviting you in. Are they the ones with a financial interest in these operations?

**Ms. Alexandra Morton:** No. In the Broughton Archipelago, the first nations never engaged in a financial arrangement, and they now have the authority to remove the farms. They are doing that. We are going to get a chance to see what happens when you remove these farms—first place anywhere in the world.

I am hearing from many nations. They may have signed agreements years ago, but I don't think there are any nations who signed an agreement that said, "You are going to lose your wild salmon. We'll take care of you—you'll have farmed salmon—but you're going to lose your wild salmon." Nations, and probably almost everybody, thought we could have both the farmed salmon and the wild salmon. However, that isn't happening here, and it's not happening in Norway, Scotland, Ireland, Faroe Islands or Chile—well, Chile doesn't have wild salmon—or eastern Canada.

The industry isn't coexisting with wild salmon anywhere in the world, so there is no place we can look to as an example of how to go forward here.

**Mr. Ken Hardie:** When we look at the issues you've raised over time, sea lice being one, the virus PRV.... By the way, DFO says the PRV that's present in the wild salmon has a different DNA than what is in Atlantic salmon, but we'll challenge them on that when their turn comes around.

What other kinds of dislocation do the fish farms create along the coast? I'm thinking of their impact on other species.

**Ms. Alexandra Morton:** They are the biggest herring fishery on this coast with no quota and no licence. During the 2017-18 first nations' occupation of the salmon farms in the Broughton Archipelago, GoPro cameras were put down in every farm, and also in Campbell River and on the west coast.

There are huge herring populations in the farms and around the farms that are apparently feeding on the fines of the pellets that are broadcast out of the mechanical arms. There is also an impact on the algae, because this is an agricultural industry that is putting out massive quantities of nitrogen and phosphorous.

When I study the movement of the viruses from the farms into the wild environment, the stain from these farms is enormous. There are all kinds of zooplankton that are feeding on the waste of the farms. The young salmon are feeding on the waste of the farms. The birds are picking up... You can get PRV out of the droppings from seagulls. This is a feedlot, and we know that feedlots need to be put into closed environments.

We don't allow wild birds to land in chicken farms because of the fear of the spread of avian flu. It's the same with the farms. They magnify disease and they just have to get into closed containment.

● (1245)

**Mr. Ken Hardie:** Mr. Pearce, at one point in our deliberations in the last Parliament, we had an opportunity to chat with some people who I believe were from Norway. We asked them about the pinniped issue there and they said it had been kind of solved. We asked them what happened, and the fellow kind of smiled and said they just went away.

Do you know what happened?

**Mr. Ken Pearce:** I'm going to relay a story passed on to me by Carl Walters at a recent meeting—

**Mr. Ken Hardie:** Very briefly, please, sir.

**Mr. Ken Pearce:** —involving the *Deadliest Catch* people, which you probably watch. They noted a decline in the Steller sea lion population in the Alaska panhandle. They blamed it on various things. Carl asked the skipper what the bottom line was. He said, "The bottom line is that we have $6,000-plus of crabs coming up in every pot and we shoot every sea lion that attacks us."

This is not happening on our coast, other than incidental...where people are angry and taking out the odd one.

**Mr. Ken Hardie:** I can't miss the opportunity to ask a question to a recovering member of Parliament, who sat across the table from us in the last Parliament and we had several interesting discussions about pinnipeds.

Free from, if you like, party affiliation, Mr. Donnelly, what do you really think about the pinniped issue on the west coast?

**Mr. Fin Donnelly:** Thank you, Mr. Hardie, for the question.

It is definitely good to be back on the other side of the committee. Putting on one of these things has been an interesting move in the last little while, but I do appreciate the seriousness of the topic.

I want to also acknowledge Ms. Morton's comments about how the federal government has handled the coronavirus in this country. I hope we have the same attention put to the focus on wild Pacific salmon.

In terms of the pinniped issue, I'm not a biologist. I think you should turn to the best science available and let that dictate which way we go. I would hope we would focus on issues that are human-caused and that we know are human-caused.

I talked about two frameworks in my presentation. One is watershed CPR. I think we should focus on conserving, protecting and restoring the lands, the watersheds that these salmon frequent and are their home. The other framework is harvest, habitat and hatcheries.

In terms of whether the government decides to get into shooting animals, I believe they will get the attention of the international animal welfare community and that will be a very difficult political issue to address, as we found on the east coast with this issue. That's an unfortunate situation when we start shooting other animals to protect certain values in our community.

I would like to see the government focus the opposite way, which is looking at the source of the problem around habitat and the issues the animals face, to increase productivity and to increase the opportunity for salmon to flourish on the west coast.

**The Chair:** Thank you, Mr. Hardie and Mr. Donnelly.

Madame Gill, I believe you're giving the first three minutes to Ms. May. If that's the case, I'll let Ms. May go and leave it up to her to switch it over to Madame Gill.

**Ms. Elizabeth May (Saanich—Gulf Islands, GP):** Thank you so much.

I would speak in French but I had to put myself on the English channel, and I know that messes everyone up. I want to thank my colleague from the Bloc Québécois for this opportunity.

I want to start with you, Mr. Snyder, because of the focus you've brought to habitat. Specifically, I think a lot of Canadians would be shocked to know that the forest fires that have burned through B.C. have not resulted in replanting efforts at all. I'm particularly concerned about that. I know with the steep banks along tributaries into the Thompson and the Fraser, and we see it on the Bonaparte, every time it rains you get debris from the forest fires from a few years ago. I don't know how salmon could live through all that.

I just want to ask if you see any hope of a significant effort from any level of government to replant those slopes with trees that are appropriate to that ecosystem to help restore salmon.

● (1250)

**Mr. Dustin Snyder:** The short answer is no. The provinces, most times, focus on planting a monocultured forest that is merchantable timber. It's exactly as you said. When you have hectare upon hectare with no trees, which would normally be soaking up all that moisture on these steep slopes, all that moisture has to go somewhere, and it goes into the ground and then eventually ends up in the water.

The Nicola River, in recent years, is a brand new river. Spawning grounds that used to be there are now moved over by hundreds of metres, just because of the amount of sediment and so on and so forth that has gone into the river because of the lack of surrounding forests.

But yes, what we need is a habitat that's appropriate for that area and we need multiple species of trees, a diversity. We can't just have a checkerboard of pine and spruce.

**Ms. Elizabeth May:** Thank you.

I want to turn to our former colleague Fin Donnelly.

I love your words around a resilient watershed ecosystem where we focus on the habitat, and I think the question around forests is just the same thing

I don't think I'll get more than one more question in before we go back to Madame Gill.

We had another witness speak about the lower Fraser and the number of flood management dikes put in over many years. If we were to focus on watershed management in the way you describe for resiliency, what role would addressing those man-made structures have in restoring a healthy ecosystem for salmon, in your view?

**Mr. Fin Donnelly:** I will just comment as well and then roll into the lower Fraser, following on Mr. Snyder's comments. I think that replanting is critically important. Replanting watersheds is fundamental, and that's where we need that habitat restoration program and a significant investment. COVID-19 offers an opportunity to employ and get people back working doing just that with a significant investment.

As well, there are co-benefits to planting forests that are not just for salmon. There are multiple benefits also for humans, so turning to the lower Fraser, flood management is one of those benefits. If we look at addressing those dikes with salmon-safe passage, fish pumps that could come out, again this is another potential COVID response where you can get people working to do this, working with municipalities and with first nations. There are multiple benefits when you address these issues. This is, I think, a fantastic way for the federal government to work with the provincial government, indigenous governments and all of those partners I mentioned in my presentation to get people working, to reinvest in watersheds and to bring our salmon back.

**Ms. Elizabeth May:** Thank you.

Alexandra Morton, I have a 2010 sockeye print above my desk. I didn't ask you any questions, but thank you for your work.

I really need to turn it back over to my colleague from the Bloc Québécois.

[*Translation*]

**Mrs. Marilène Gill (Manicouagan, BQ):** Thank you, Ms. May.

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

[*English*]

**The Chair:** You have three minutes.

[*Translation*]

**Mrs. Marilène Gill:** Thank you, Mr. Chair.

I'd like to welcome and thank all the witnesses, as well as my former colleague, Mr. Donnelly. My question is for Mr. Snyder, specifically.

Mr. Snyder, you spoke several times about the lack of data and the need to update it. These are going to be assumptions, for sure, but I'd like you to talk about the differences between the data 20 years ago and the data today, particularly with regard to the recommendations that have already been made for salmon.

What changes could these recommendations make to the actual updating of data?

[*English*]

**Mr. Dustin Snyder:** The data difference that we'd be looking at is not only population based, given that our populations were a lot higher back then, but salmon are really unique in their straying capabilities. When salmon are headed up, it's true, they'll return to their natal stream; however, if they're running on a limited tank of fuel, if you want to put it that way, if they start to run out of fuel, they will stray off somewhere. What they're doing then is that they're kind of distributing those genetics elsewhere.

With what they're doing at Big Bar right now, they are collecting some brood stock at Big Bar for the potential need for emergency enhancement. However, what they're finding is that, as they test the genetics of some of these fish, it's not necessarily that certain. We're ending up with, say, either 40% certainty that the fish is from a certain stream, or they're 18% certain. When you get your percentages that low, you can't even call it certain at all.

Not only that, but with regard to the coated-wire tag program as an indicator stock, that helps assess what is coming back or where it's being caught. Now, when you have a supersmall population, those fish might travel together. They might not venture out as far. They don't need to seek as much habitat. When there's a whole bunch of fish, if we were to have 100,000 fish returning to the area, those fish would be straying out to other areas, and when they migrate out into the ocean, they would be covering different areas.

For example, the catch in the marine environment right now might not be showing that they're catching any upper Fraser stocks. However, those stocks might actually be there. They're just in such small numbers. An example is that you can't catch any fish if they're extinct, and that doesn't mean that you didn't impact them at one time.

I hope that answers your question.

● (1255)

[*Translation*]

**Mrs. Marilène Gill:** Yes, thank you.

It seems that I don't really have time for another question, but I'll make it quick.

How long will it take to collect and update the data so that you can use it quickly?

[*English*]

**Mr. Dustin Snyder:** The chinook up here run on a five-year cycle. It would be five years before you could get the data on one cycle of fish. Again, this is something that needs long-term investment and long-term monitoring.

**The Chair:** Okay. Thank you, Madame Gill.

We'll now go to our colleague Mr. Johns for six minutes or less.

**Mr. Gord Johns (Courtenay—Alberni, NDP):** Thank you, Mr. Chair.

I want to thank all of the witnesses for the important work they're doing to protect, conserve and save our wild salmon.

I'll start with my former colleague and good friend Fin Donnelly. Thank you for the work you're doing, as a former MP, at the Rivershed Society of British Columbia.

Mr. Donnelly, you've heard loud and clear about the need for restoration. You talked about CPR—conserve, protect and restore. We just heard, in the last round, that for the B.C. salmon restoration fund, there was $340 million in applications and only $70 million was approved. Clearly it's oversubscribed. The need is great. We heard from first nations at this committee that they were rejected. They said that if they aren't funded, as well as groups along the Fraser and throughout coastal British Columbia, soon our wild salmon are going to be in a dire situation and extinction will be imminent.

Can you talk about how important it is for the government to step up its game federally? What kind of investment is needed now, especially given the opportunity with COVID and COVID recovery plans, since a lot of this work is physically distanced and could be done now?

**Mr. Fin Donnelly:** Thank you, Mr. Johns, for the question and for your good work representing the west coast of Canada.

The issue is paramount. We need to act now. The federal government needs to take action. As I mentioned in my presentation, there must be bold action now. If we don't act and the federal government does not act now, we will be on the brink of losing our west coast wild salmon and our way of life. The kinds of investments we need have to reflect that. If we're talking dollars, one thing we talked about was an immediate investment of $500 million for just the Fraser watershed alone, over the next 10 years, so $50 million a year. Even that is a modest investment.

You mentioned the B.C. salmon restoration and innovation fund. That is a good start, with $142 million over five years, but it is not sufficient. You just mentioned the need in all the different communities. These are first nations and other communities that want to restore their watersheds, but they have not been able to do that. The funds need to be increased.

An opportunity presents itself currently with COVID to get people working again. We have had economic devastation globally and in Canada, particularly on the west coast. This offers us an opportunity to partner with the provincial government and focus on watershed CPR and watershed security to secure our watersheds and make an investment and a move, with bold leadership, to signal to Canadians that this is a serious issue and we are taking it seriously. It's similar to Big Bar. We need that kind of investment to move forward.

To give an example, Dr. Tara Martin of UBC is doing work that will show we will need to invest at least $350 million in the Fraser estuary alone to prevent many species from being extinct over the next number of years. That's just the estuary. If we include the Fraser Valley, which is another significant part of salmon habitat of the lower Fraser, you could easily get to $500 million over the next five to 10 years in just the lower Fraser, not to mention the areas that Mr. Snyder has talked about in the upper Fraser and many of the regions there and the ocean conditions that Dr. Morton has talked about. We have an opportunity right now to work with partners, invest in watershed CPR and address these critical threats.

Mr. Johns, I'll conclude by saying that you could encourage the members of this committee to take bold action in their recommendations to government and really work together, for the sake of wild Pacific salmon, to encourage the government to do the right thing. We have studied this to death over the last 30 years. It is time to take action before we lose our west coast wild salmon and way of life.

● (1300)

**Mr. Gord Johns:** Thank you, Mr. Donnelly.

Ms. Morton, we heard the minister's mandate in the campaign. She said that they were going to create a plan to transition from open-net pen salmon farming by 2025. It wasn't a plan to create a plan by 2025 to transition from open-net pen salmon farming.

Would you comment about the broken promise that the government is making right now?

**Ms. Alexandra Morton:** Yes, people are losing faith in the Canadian federal government on this issue because Trudeau clearly understands there's a problem with salmon farming. He understands people don't want it, so he made the election promise that this industry would be out of our waters by 2025. Then he assigned an east coast minister, who I don't really think has a grip on the severity of the situation here in British Columbia. She started saying, no, it wasn't to get it out of the water; it was to have a plan to get it out of the water.

As of yesterday, in a radio interview, she seems to have flopped back in the other direction. I just feel like the government's not sure whether it's more scared of the three salmon farming companies in British Columbia or the Canadians who see these wild salmon as a national treasure, food security—many things.

It's not a good situation, and I wonder whether Canada needs two ministers. This is a big country with two big coasts with very different needs and very different species. I really think we need a west coast minister, given the situation here in British Columbia, or at the very least, somebody at the regional management level whose whole life is understanding what is going on with these fish.

**The Chair:** Thank you, Mr. Johns.

We'll now go to our second round of questioning. We have Mr. Bragdon for five minutes or less, please.

**Mr. Richard Bragdon (Tobique—Mactaquac, CPC):** Thank you, Mr. Chair, and thank you, special guests, for your input and the perspectives that you all bring to the table today. I'd like to direct my questions to Mr. Pearce to start.

DFO recently provided the committee with written responses to questions raised by committee members about the pinniped population in and on the B.C. coast. The DFO responses stated:

> The current harbour seal population is in line with historic population norms....
>
> Steller sea lion populations in BC waters have increased by approximately 4-fold since surveys began in the early 1970s.

Do you agree with these statements?

● (1305)

**Mr. Ken Pearce:** I strongly disagree with the seal population's.... In our IFMP, we have historical data presented that the current populations are almost double that of the pre-arrival of the white man to the coast. By Olesiuk's study, we're at 105,000 seals, and we were at 50-odd thousand because of normal hunting by the strong first nations. On the sea lion population, I agree with those numbers and they're a major problem.

**Mr. Richard Bragdon:** Thank you.

It is apparent that active management of pinnipeds in our Pacific region could be a valuable tool for conserving and restoring wild salmon stocks. Could you describe what a sustainable pinniped fishery should look like, if the purpose of the fishery is to conserve and help restore the wild salmon populations?

**Mr. Ken Pearce:** In our IFMP we're targeting a reduction through harvest—and we have markets for the by-products of the seals—reducing them by 50% over the next three years. It's a trial test for the first 10,000 or 15,000 to scientifically assess whether or not we're on track.

**Mr. Gord Johns:** The active management and removal of specific pinnipeds in specific locations on the Pacific coast have delivered measurable results for wild stocks. Endangered winter steelhead in Oregon's upper Willamette River system continue to show improved numbers this season, following the removal of 33 pinnipeds from the waters in 2019. We keep hearing from the government that they need to study the pinniped factor more.

Do you think that the proven results of active predator management in other jurisdictions could be achieved in our waters if we were to adopt active management of predator populations that have grown unchecked?

**Mr. Ken Pearce:** First of all, let's address the studies. We've studied this to death. We've spent millions on it. We have the top scientists on both sides of the border specifically pointing out the consumption.

I am actively following what's happening on the Columbia River because I think it's applicable to the Fraser system. There's a 23-member board that met in August to specifically talk about culling, not harvesting, the sea lions on the Columbia, and that report will be out by the end of September. I think that should provide a very good road map for us moving forward.

**Mr. Gord Johns:** Thank you, Mr. Pearce.

Mr. Chair, do I have time for another question?

**The Chair:** Yes. You can have a quick one, please.

**Mr. Gord Johns:** Okay.

This question is for Mr. Snyder.

As I'm sure you are aware, the federal government attempted to cut funding for the salmonid enhancement program in 2017. The SEP provides valuable support for public education and grassroots conservation institutes in B.C. for the benefit of our wild Pacific salmon.

Has the Spruce City Wildlife Association benefited from the SEP resources in the past, and how important is the salmonid enhancement program to grassroots organizations like yours in B.C.?

**Mr. Dustin Snyder:** Thank you for the question. That program is extremely important.

The Spruce City Wildlife Association did benefit in the past. However, there were significant cuts to this area, I believe in 2012, and a lot of those resources were taken away from the upper Fraser. All of our habitat staff are now based out of Kamloops.

Again, we have one community adviser here, who would be our only SEP staff from Kamloops to the top of the Fraser watershed. If you look at that on a map, it's a pretty significant chunk of the province and we have one SEP staff member. In that Williams Lake to Valemount-Vanderhoof area, he runs the stream to sea program, so that gentleman puts on a lot of miles.

Having said that, yes, years and years ago, Spruce City Wildlife Association did receive funds. We received support from those folks, and we were involved in habitat projects. However, the resource restoration unit team based out of Kamloops is swamped. They have a really big chunk of area. Even if we really wanted or needed their help with habitat projects, there would be a long line to stand in to get their help.

● (1310)

**The Chair:** Thank you, Mr. Johns.

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

**Mr. Ken Hardie:** Thank you again, Mr. Chair.

When we were discussing the Big Bar situation and efforts to assist to recover stocks, there was an adverse reaction to the notion that hatcheries could fill the gap. There were issues with DNA, etc.

Mr. Donnelly, we'll start with you and then I'll ask Mr. Snyder to chime in.

What does a good, doable hatchery strategy look like for the Fraser River?

**Mr. Fin Donnelly:** Thanks for the question, Mr. Hardie.

First of all, I'm not a biologist. I want to preface by saying that my comments on hatcheries are from what I've gained from reading research from the department and other sources.

You've raised the issue of diversity and weakening the biodiversity in the stock. The ability for those salmon to fend off disease and other impacts makes them competitive in the environment. From what I understand and what I've read, the industrial hatchery model used in the United States has mainly not proven to be successful, and it has proven to be extremely expensive when you measure investment per fish.

Mr. Snyder and others have mentioned—and obviously he can speak more to this—looking at specific hatcheries, community-based hatcheries, because many of these hatcheries in British Columbia, where we've chosen a very different model, are education centres, community support centres. They're places for the salmonid enhancement program, SEP, to operate and to work with communities and classrooms. They're excellent areas in which you can build infrastructure in communities, not just for salmon but for people as well in communities. I think the government should consider that type of facility and consider the impact and the effects it would have.

Again, that is to try to get salmon off of life support—or steelhead. That's what I think we need to do, and then concentrate on bold investments in habitat and some of the root causes in our watersheds, which are the homes that these salmon live in, including the ocean.

Those are the areas I think the government should be focused on. Again, I reiterate: conserve, protect and restore. We need to focus on protecting salmon habitat, restoring where it's been impacted, and then we need a conservation ethic throughout British Columbia and the west coast—indeed, throughout Canada and the world—to have the transition that we're talking about, toward a resilient watershed, a resilient way of life.

**Mr. Ken Hardie:** Mr. Snyder, I get from Mr. Donnelly's comments that economies of scale aren't necessarily the metric we want to use when it comes to setting up hatchery operations. We have to look beyond that and consider a broader range of benefits from operations that might cost more to operate but that deliver better results.

Would you agree with that?

● (1315)

**Mr. Dustin Snyder:** Yes, I would completely. I think what is needed, especially in the upper Fraser, are conservation-focused hatcheries. This isn't about getting as many fish in the bin as you can and setting them all free at the exact same size, at the exact same time. I think what we need is a more natural approach, not only to ensure that we can get a boost in the population but also to ensure that we're not impacting diversity, especially given that some of these populations are so small.

In some areas, they've tried, and they're looking into a multi-stage release. This would include releasing them, actually digging fake redds or salmon nests in the river, planting some eyed eggs so that they can transition naturally without any predators, and releasing some at the unfed fry stage and at the fry and smolt stages as well.

There are also a variety of things you can do within the facility to ensure that you are taking a more natural approach. A lot of the things we raise salmon in don't look natural. We use big aluminum troughs. You can integrate some habitat into that, adding some different colours by painting the inside of the thing, while ensuring, as much as possible, that you're not interacting with the fish.

When you hand-feed the fish—and I can speak to this from our experience over the last couple of years—eventually they almost become pets. They get used to you. When I would go in and look over a trough when they were expecting food, they'd all rise to the top and get excited, because that meant dinnertime. However, last year we used auto feeders, and right up until release I could not get those fish to come to me. That was a bit sad for me, but I knew it was better for the fish.

It's little things like this that we need to integrate into these conservation-focused hatcheries. Just blasting out as many fish as possible is not going to give us the result we want, as Mr. Donnelly said, and that's been proven in multiple facilities.

**The Chair:** Thank you, Mr. Hardie.

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

**Mr. Blaine Calkins (Red Deer—Lacombe, CPC):** Thank you, Mr. Chair.

Alexandra, it's great to see you back at committee. I have one quick question for you, based on the comments you made on the switch to fresh water or non-salt water or closed containment.

Would you like to see strictly land-based freshwater closed containment, or would you be satisfied with closed containment in a closed-containment pen on the ocean? What specifically do you think, and where do you think this needs to go?

**Ms. Alexandra Morton:** In my experience, the ocean eventually breaks everything, so it would make sense to just get them all onto land and build a secure system. It doesn't necessarily have to be fresh water. They can make salt water. Then they have a much greater ability to collect the waste. It just makes sense to put them right on land.

**Mr. Blaine Calkins:** You're not concerned at all, then, with any water exchanges. If they use a freshwater system, the same types of contagions.... A salmonid is a salmonid. If it affects the salmon population, it will likely affect the trout or the char population. Are you not worried about any crossover, or do you think those risks are much more manageable there than in open-net pens?

**Ms. Alexandra Morton:** I'm very concerned. That's why they need to come out of the water. It's these closed recirculating systems that are the future of the industry, and closed means they're not getting out.

The 'Namgis First Nation has had field trials for such a system. They built perc holes on the watershed and put dye in the tanks. Then they operated and would see if the dye was spreading. That was quite a few years ago. The technology has advanced enormously—

**Mr. Blaine Calkins:** Is that the facility out by Port McNeill? Is that the one you're talking about?

**Ms. Alexandra Morton:** Yes, the Kuterra project. It's the reason we—

**Mr. Blaine Calkins:** Yes, I've been there. I've seen it.

That's wonderful. Thank you for coming back to committee.

I'm going to move now to Mr. Pearce.

Mr. Pearce, what do you think, based on the testimony we've heard from other witnesses.... We've heard a number of them say that to have effective ecosystem-based management, where we manage all populations.... This is a typical wildlife management population strategy that all governments use at the provincial level for terrestrial animals. However, the Government of Canada, through its marine mammal protection act, puts marine mammals in a box and takes them out of the ecosystem-based management approach.

If we're able to get back to an ecosystem-based management approach of all species in the food chain, what numbers are we looking at? Where do we need to go to restore some semblance of balance? What should our numbers for seals and our numbers for sea lions be? What would you recommend?

**Mr. Ken Pearce:** Our focus right now, because of the science behind this, is on the seals in the Gulf of Georgia and the Salish Sea. The current populations, in the latest Olesiuk study, from 2018, show 105,000 on the coast and 48,000 in the gulf. Our proposal is that we harvest up to 50% of them and then monitor the results. That would bring them back into historical balance. We're not out to annihilate.

**Mr. Blaine Calkins:** No, of course not.

**Mr. Ken Pearce:** We're just out to bring them back into balance.

**Mr. Blaine Calkins:** What would you say to political entities that scream and yell about the restoration of salmon but also scream and yell, “Don't touch the seals”? What would you say their net effect is on the salmon populations?

**Mr. Ken Pearce:** I have two answers to that.

First is the financial answer. We've heard that a lot of money is being spent on habitat and whatnot. My first question is, are you happy with 50% or more of that money being eaten by seals in their first month or two in the ocean?

The second answer, of course, is that the seals and the southern resident orcas are not compatible, because of the consumption rate by the seals of the orca's preferred food, chinooks. There are just not enough. You can't have both; it's one or the other. What do you want?

● (1320)

**Mr. Blaine Calkins:** Thank you very much, Mr. Pearce.

Mr. Snyder, notwithstanding the background that you see behind me, I'm going to ask you whether you believe anglers and hunters play a very important and vital role in the conservation of fish and wildlife species.

**Mr. Dustin Snyder:** Yes, I believe very much so, actually. At the Spruce City Wildlife Association, I am focused on the fish side of things, but we do have wildlife projects going on as well. We're very involved in the caribou situation around here and that sort of thing.

Again, I'd like to tie that back to giving people something to lose. I have some friends who live in the Lower Mainland, and when they take a long drive all the way up to Prince George to come see me, they don't notice if they don't see a moose for the whole drive. If I drive all the way to Vancouver and don't see a moose, it stands out to me. That's an appreciation for the species.

**Mr. Blaine Calkins:** That's fair enough. I think you and I are always looking off the road when we're driving to see what we can see. I'm no different from you.

I know there's—

**The Chair:** Thank you, Mr. Calkins.

**Mr. Blaine Calkins:** I want to talk about spawning channels, Mr. Chair. Nobody has talked about spawning channels yet.

**The Chair:** Well, I can't help that. I don't decide on the questions or the answers.

Mr. Hardie, you have five minutes or less, please.

**Mr. Ken Hardie:** Let's let Mr. Calkins ask that question.

Never let it be said I never did anything for you, Blaine.

**Mr. Blaine Calkins:** I appreciate that, Ken.

I want to talk to Mr. Snyder, and of course to our good old friend Fin.

It's good to see you, Fin.

There was a lot of talk about hatcheries. Mr. Snyder, you mentioned that maybe there is no effectiveness for a large-scale hatchery in the area where you are, but maybe some of the smaller community-based hatcheries.... Fin, I think you would agree with that as well. There are also spawning channels.

I'd like to get input from both of you, from your respective groups and organizations and the people you work with. If hatcheries are going to be part of a solution for restoring stocks, where are the opportunities for more spawning channels so that fish reared in a hatchery will have a better opportunity at an enhanced natural spawning channel when they return, if they get to return?

**Mr. Dustin Snyder:** I'll quickly start.

Spawning channels do work in quite a few areas. However, they're also kind of forced into a situation now. Where we are, there is a significant bear population and an increasing grizzly population, and these things kind of end up as big food troughs. In this case, I would more so support a natural spawning habitat area where fish have a better chance to defend themselves and escape and can use their preferred habitat, as opposed to a kind of habitat that we have distinctly forced them into, if that makes sense.

**Mr. Ken Hardie:** If I can, I'll interject now, because I have one other question, Blaine, that I'd like to ask Ms. Morton.

We've been speaking a lot about the lower reaches of British Columbia, and the Fraser River, the Salish Sea, etc., but we've seen the same kinds of declines up in Meziadin, along the Nass and the Skeena and everywhere else, where we don't have the same conditions that we've been talking about in the lower part of the province. What's going on there?

**Ms. Alexandra Morton:** I know that in 2013, 5% of the fish in the Skeena and the Lower Nass were infected with this piscine reovirus. However, if we want to answer that question, we need a director of wild salmon. We need somebody to pick up the genomic profiling tools. If you were to sample all the fish in British Columbia as they come and go on this coast, their immune systems would light up at intervals. You could go back to those spots and see what caused that, and you could try to fix it. Then the next year you can ask the salmon again, "Did we make it better or not?"

We could answer the questions in the Nass. This genomic profiling is also phenomenally powerful in hatcheries. This is from Dr. Kristi Miller-Saunders's lab at the Pacific Biological Station, in Nanaimo. This is an enormous tool for restoring wild salmon that is simply not being picked up.

**Mr. Ken Hardie:** We'll be looking forward to the opportunity to ask her about that.

Is there any place on the coast that would be safe for open-net aquaculture?

**Ms. Alexandra Morton:** No. We looked for it. The problem is that the industry is based on share price, so they have to grow every single year. They will never be satisfied with five, 10 or 1,000 farms. They always have to have more farms, and through torturous talks with the industry years ago, we realized that wild salmon and farm salmon need the same environment. Somebody put this industry into the biggest wild salmon migration routes of this coast and, not surprisingly, it's not going well.

This just needs to start over and get out into the recycling tanks, with closed containment, which more and more business people are investing in around the world.

● (1325)

**Mr. Ken Hardie:** Thank you for that.

I'll move to the health of the herring stock. We noticed on the east coast that the herring are starting to not look very good. They look unhealthy. They're skinny and they're not a good food source for the cod, and we've had problems with our runs here.

Is it the health of the herring or simply the number of them that is creating the problem here, Ms. Morton?

**Ms. Alexandra Morton:** It's both. We have a massive herring die-off going on right now in the Queen Charlotte Strait. I know DFO is not researching it, but I'm trying to take samples. We also have the industry catching a large number of them. Again, if we use the genomic science, we could find out exactly what the problems are. There's really no need to guess anymore.

**Mr. Ken Hardie:** That's fine for me. Thank you, Mr. Chair.

**The Chair:** Thank you, Mr. Hardie.

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

[*Translation*]

**Mrs. Marilène Gill:** Thank you, Mr. Chair.

My question is for Mr. Pearce.

First of all, I'd like to thank you, Mr. Pearce. It's always interesting to hear from people who have direct experience, in this case fishers. I'm very sensitive to the seal situation in Quebec, as are my friends from the Magdalen Islands.

I'd like to talk about the potential obstacles. The seal harvest project you're suggesting is quite ambitious. Based on the scientific data, it would be one of the solutions in the case of salmon.

What obstacles might you face? As I said, it's an ambitious project. Are the fishers ready? There's also the whole issue of the market and the international aspect. Could you give me a general description of how you see things?

[*English*]

**Mr. Ken Pearce:** Thanks for the question. It's very easily answered.

First of all, the harvesting is a no-brainer. We have all the infrastructure in place with the unemployed fishers and their large vessels. We've talked to several of the processing plants, including one on Vancouver Island, Hub City Fisheries. Their leader is a board member.

There are two markets. The one we initially started getting a very positive response from was the Asian market, specifically the Chinese and the Japanese market. It's broken down into pelts, meat and oil, but it's closed right now because of COVID. We started poking around the commercial sector, and bingo: There's a five-million-pound commercial bait requirement for commercial prawn fishermen and crab fishermen. We have talked to several first nations people who have used this bait and they've said it's fantastic.

In my opinion, this is a no-brainer, because the infrastructure is already in place to handle this situation. We just need a green light to go out and, again, bring it back into balance, and then assess.

I hope that answers your question.

[*Translation*]

**Mrs. Marilène Gill:** Yes, perfectly. Thank you very much, Mr. Pearce.

My time is up, Mr. Chair.

[*English*]

**The Chair:** Thank you, Madame Gill.

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

**Mr. Gord Johns:** Thank you, again, Ms. Morton, for the important work you're doing in fighting to protect wild salmon on coastal British Columbia waters.

We talked about the Cohen commission and some of its recommendations. Right now, in the current model, DFO is there to both regulate and promote the sector. Justice Cohen made it very clear that this is a conflict. Now we're hearing from the minister that she's addressing all 75 recommendations made by the Cohen commission, including recommendation 19, which is about moving the fish farms out of the Broughton Archipelago if there's any impact on wild stocks. As Ms. Morton articulated, the science isn't there for this year, but science from previous years would be able to justify and articulate that there is a serious impact on wild migrating salmon.

Ms. Morton, can you speak about the Cohen commission and whether you believe the government is actually addressing all 75 recommendations, and maybe give a grade on how they're doing on the implementation of those recommendations?

● (1330)

**Ms. Alexandra Morton:** Thank you.

The Canadian public spent $23 million on the Cohen commission, and I think Justice Bruce Cohen did a fine job of looking at what we know about wild salmon and what needs to be done. He said that if we want the Fraser River sockeye—the commission was just on the Fraser River sockeye—then salmon farms have to be removed from the Discovery Islands by September of this year if there's greater than minimal impact.

DFO has not come to me to ask about the sea lice outbreak this year. They were not out there themselves. Justice Bruce Cohen also said that the chance that the government has been captured by the fish farm industry is substantial, and when you see regulatory people moving back and forth—working in industry, then working in DFO, then moving back to industry—they are the same people. DFO has become part of the salmon farming industry.

The salmon stocks have gone lower than they were in 2009, which triggered the Cohen commission, so if you were to grade the government response to this commission based on salmon returns, you'd have to give them a failing grade, because in the end the only thing that matters is whether or not the fish are coming, and they're simply not. We are headed for the lowest season yet again.

I'm not sure people realize it. For so long they have heard that salmon stocks are going down, but extinction is right there at the bottom, and we're very close. My colleagues who are working in the upper Fraser River are seeing that for themselves.

The grade is failing. They have not followed those recommendations and restored the wild salmon runs of this province.

**The Chair:** Thank you, Mr. Johns. Your time is up. I'm hopefully going to get you another round.

We'll now go to Mr. Arnold for five minutes or less, please. I will be strict on the time to make sure we get through the full round.

**Mr. Mel Arnold:** Thank you, Mr. Chair.

I'll switch to Mr. Snyder, if possible.

Mr. Snyder, you mentioned in your opening remarks that the dated coded wire tag program continues to be used by DFO, and I assume it's being used for DFO's assessment and return monitoring systems.

Are you aware of the newer technologies and methods that could replace the coded wire tag system?

**Mr. Dustin Snyder:** I am. To quickly reiterate, the coded wire tag information I was referring to is the stuff they were looking at with regard to the Penny hatchery that was up here, which was DFO's facility that was running the coded wire tag program. That facility never actually met its quota for how many were released to be an official indicator stock. Some years, actually, the place ran out of water and they had to transfer those fish elsewhere and had mass die-offs, and yet the information from that hatchery that was shut down over a decade ago is still being used today to make decisions.

Yes, I am aware of some of the parentage-based tagging, and I think that's a good way to go.

**Mr. Mel Arnold:** Do you know why DFO refuses to retire the coded wire tag system and transition towards other, newer, better technologies?

● (1335)

**Mr. Dustin Snyder:** In a state of the salmon presentation that I recently saw from somebody in DFO, there were multiple pictures of a rear-view mirror. DFO is telling itself that it needs to stop doing this and looking in that rear-view mirror. Unfortunately, I think that's all it is; this is what's always been done, so this is what's continuing to be done.

**Mr. Mel Arnold:** Thank you.

In the last few months here, I've had the opportunity to tour a salmon hatchery in the Okanagan system. That hatchery has enabled the restoration of sockeye salmon stocks into the Okanagan water system, which feeds into the Columbia, restoring those stocks for the first time in decades or over 100 years. Now they're actually able to migrate all the way up into Okanagan Lake. That hatchery was built on a small stream in Penticton. When I was there, they showed me what they called a hatchery in a box. It was a self-contained hatchery in a 20-foot Sea-Can shipping container.

You mentioned that large-scale hatcheries aren't the way to go. Do you see an opportunity or a use for smaller, sometimes portable, hatcheries that could be placed on some of these streams that, as you mentioned, see only a dozen returns in a year to rebuild those stocks? Would those be a way to go? I understand Washington state in the U.S. has been using them, but DFO has really shown no interest or has been reluctant here in Canada.

**Mr. Dustin Snyder:** I am familiar with them, and the ONA is doing some great work there. I would suggest that there do need to be some alterations to those, especially given that they would be operating on severely endangered stocks. For example, for our hatchery, we have backup power; we have redundancy in all of our filtering and all of our pumps.

As well, we have a bit of a different climate up here. Last year, we saw -47°C for almost a week straight. You have to pump a lot of water through those tin cans in order not to get a freeze-up at -47°C.

I would suggest that, yes, there is potential, but there would need to be some modifications or some placement situations in which maybe those things would be placed in Prince George, for example, and the brood stock would still be transferred in and out, as opposed to being plunked into a really remote area that, if there was a power failure, might be extremely difficult to get to when there is 10 feet of snow in February or something like that.

**Mr. Mel Arnold:** Would these tie in well with the new identification systems, the DNA testing, so they could match parent fish to the stream they actually came from and make sure those eggs and fry that were being hatched out would go into that genetically specific stream type?

**Mr. Dustin Snyder:** Yes. We do need to reinvigorate that program up here to ensure that our genetic information is accurate, but yes, there is potential to use those programs with a "hatchery in a can" concept.

**The Chair:** Thank you, Mr. Arnold.

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

Go ahead, please.

**Mr. Ken Hardie:** Thank you again, Mr. Chair.

Mr. Donnelly, would you say there is dysfunctional competition between the various fishing interests—the commercial, the indigenous and the sport fishing? If so, do you think that is also harming the stocks?

**Mr. Fin Donnelly:** Absolutely, there's vested interest in protecting the access to a way of life, for sure. There are also going to be varied interests in terms of what is considered the solution. I think what we have to look at—and that's why, again, we've continued to focus on watershed CPR—is that just looking at the symptoms is not going to provide the best solutions. We need to look at the root cause.

We are talking about hatcheries being part of the solution. As Mr. Snyder said, I think that conservation-based, science-related hatcheries can play a role in the solution, but we know that, if we look south of the border at California, Washington and Oregon, this has not proven to be a solution since the 1970s. If we look back over the last 30 or 40 years, they have not seen the results of implementing that managed solution.

We need to do something different in Canada. We have a real opportunity, not just with the Fraser and north Columbia but also with the Skeena, the Nass and the other great watersheds that you mentioned, Mr. Hardie. We need to prevent the damage that's happening from many industrial developments. We need to work smarter and do things better. We need to protect habitat. We need to restore habitat where damaged, and then we need a conservation ethic.

The ecosystem is going to be your best and cheapest solution to solving the problem. If we can assist in any way, it will be to focus on restoring the ecosystem, protecting the ecosystem and letting that do its job.

The issue—

**Mr. Ken Hardie:** Fin, you alluded to something a little earlier, which I want to touch on before my time runs out, and that is the pressure from foreign fishing out in the deep ocean. We saw the cod fishery impacted, particularly by Portuguese and Spanish fishing. What about the Pacific? What do we know about what's going on out there that officialdom doesn't seem to be able to deal with?

● (1340)

**Mr. Fin Donnelly:** That's a great question, Mr. Hardie. I thank you for asking that.

When I was a member of Parliament and the fisheries and oceans critic for the NDP in 2017, I asked the then minister of fisheries and his chief of staff, Ms. Blewett, that question, and the response was that we knew the flag of the country that had these massive nets out, not far from domestic waters, in international waters off our shores, but we weren't able to come forward with identifying that country because of the lack of support at the G7 or G8 table. That again is part of the bold solution. We need to out those countries that are taking our fish in massive quantities. If there is illegal, unreported and unregulated fishing happening in our waters, we as a country need to identify that.

We also know that even in domestic waters we can be doing a better job of harvesting with selective methods, in the Fraser and in many other watersheds as well. There are many solutions we can look at with regard to the harvest issue, not to mention habitat and hatcheries.

If I could leave the committee with one imperative, it would be to please act now. Bold action is needed. There's a framework that's already been mentioned and outlined in much of the witness testimony you've already heard.

**Mr. Ken Hardie:** I have a quick question for you, Mr. Pearce. Every time we talk about managing the seal population, interests in the United States go crazy on us. They start saying, well, we're not going to import your lobster anymore, etc. Do you think we'll need to let the U.S. go first with some form of action before we're able to?

**The Chair:** You have 15 seconds.

**Mr. Ken Pearce:** From what I can see, they're fully aware of the pinniped problem on the Columbia and in Puget Sound. They've done their test studies and are moving forward. As I said before, we're just waiting for the outcome of this 23-member panel to discuss it. They're not concerned about the public; they're concerned about their fish now.

**The Chair:** Thank you, Mr. Hardie.

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

Go ahead, please.

**Mr. Richard Bragdon:** Thank you, Mr. Chair.

I just want to go back to Mr. Donnelly one more time, and I want to circle back to whether the Fraser watershed initiative is an initiative of the Rivershed Society of British Columbia. Is it working in conjunction with them?

**Mr. Fin Donnelly:** Thanks, Mr. Bragdon.

The Fraser watershed initiative is the creation of the Rivershed Society of British Columbia, and we are focused on encouraging the federal, provincial and first nation governments to make a significant investment. Currently, the project is on hold until we're able to secure further investment.

The Rivershed Society is also a member of the BC Watershed Security Coalition, and we've been working closely with a provincial focus, so it's broader than just the Fraser, to look at encouraging the federal and provincial governments to invest in watershed security.

I mentioned earlier in testimony that the COVID-19 devastation is one opportunity for the governments to look at partnering to get people working. Many of these jobs in restoration allow for social distancing, and you could invest quickly and get people back to work.

**Mr. Richard Bragdon:** Thank you, Mr. Donnelly.

I see that my colleague Mr. Fast is on the call, so I'm going to yield the rest of my time to Mr. Fast.

**Hon. Ed Fast (Abbotsford, CPC):** Thank you very much, Chair.

Thanks, Mr. Bragdon, for ceding your time.

Ms. Morton, I appreciate your passionate intervention. Your focus has been the fish farms. When I look through the Cohen commission's recommendations, I see a host of recommendations that the government suggests have effectively been responded to, but in fact that is not the case.

If you had to pick two critical actions that the federal government could take beyond eliminating fish farms on the most critical fish migration routes, what would those two actions be?

● (1345)

**Ms. Alexandra Morton:** Appoint a regional director of Pacific wild salmon, because there is nobody in DFO whose entire focus is what is going on with these fish.

Also, you will be talking to Dr. Kristi Miller-Saunders, so pick up that science and use it, because that is phenomenal. That is the most powerful salmon restoration tool we have ever had. It goes straight to the fish. We can work with them. We can make changes and we can ask the fish, “Did we make it better or not?”

Those would be my two recommendations.

**Hon. Ed Fast:** Okay.

You heard some testimony today about pinnipeds. You also heard testimony about hatcheries. Are these issues that you feel are critical and need to be addressed, or do you feel that they are secondary to the primary interest of yours, which is the fish farms?

**Ms. Alexandra Morton:** It's not that fish farms are my interest. It's that I lived in a territory that the fish farms moved into and then I studied the impact of that. I think hatcheries are a serious problem. I think disease testing should be upped in those hatcheries.

As for the pinnipeds, removing the predators has never helped to release the prey, except maybe in very specialized situations, like what is probably happening in the Columbia River and other rivers in our area. You have to be very careful. If you remove the animal that is eating the hake, for example, and the hake prey heavily on juvenile salmon, you can actually have a reverse impact. These are questionable ways to go forward.

**Hon. Ed Fast:** Now I'll ask a question of Fin, my former colleague.

It's good to see you again. You and I have talked a number of times about the declining salmon populations on the west coast. Thank you for your interest in that.

Just on the interest that you've articulated today, there are issues of mass marking of hatchery fish to allow for a mark-selective fishery. There are proposals for selective fishing gear. Are there additional actions beyond those you've mentioned that the federal government should undertake to address the declining salmon populations?

**Mr. Fin Donnelly:** Thank you, Mr. Fast. It's nice to see you as well. Thank you for the question.

I've articulated in my presentation the importance of watershed CPR and bold action. The federal government must take bold action now. I think that's the bottom line. I emphasized the framework that many other witnesses also have talked about with regard to harvest, hatchery and habitat. I think we need a bold investment in habitat.

You mentioned harvest-selective fisheries. I think many nations and areas of the west coast are ready to go with implementing selective fishery types of solutions. Whether they're pound nets or what have you, I think that's something the federal government could facilitate today, and it could make that happen in test fisheries, even on the lower Fraser.

The critical thing right here, as I've emphasized before in my remarks, is that you as a committee need to come together to agree on most of the solutions. I think you could agree on most of the solutions. The reason I say this is that there is power in unity. When this committee of different values, approaches and parties comes together with a unified voice, the government will have a very hard time avoiding the recommendations this committee makes through the recommendations in your report.

I would ask, Mr. Fast, if you could take that courageous step to move forward with the members of the committee to save west coast wild salmon. That is what is needed.

**The Chair:** Thank you, Mr. Fast.

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

**Mr. Ken Hardie:** Well, I wasn't quite expecting to be up again, so I'll tell you what. If Ms. May has a question or two that she'd like to do a buzzer-beater with, then I'll cede some time to her.

**The Chair:** Okay. We'll go to Ms. May for two or three minutes. I am running out of time.

**Ms. Elizabeth May:** Thank you, Chair, and thank you, panel.

Thank you very much. I'll try to be very succinct.

For the witnesses, this is something new we have. It's called "lowering the boom", because we tend to forget to unmute ourselves.

I want to go to Fin Donnelly on this quick question. I very much agree with you, Fin, about unity. If there is any issue that should be non-partisan, it's saving our wild salmon. It's so much a part of our life in British Columbia.

In a hierarchy of things.... You just said that you think we could come to a consensus. I know this may be an awkward question, so rather than asking you where you don't think we have consensus, can you identify what you think the top and most important bold steps are that should attract 100% support from all the MPs around this virtual table?

● (1350)

**Mr. Fin Donnelly:** Thank you, Ms. May.

I believe we can come to a consensus over a framework. To put it in simple terms, for instance, our organization has called it watershed CPR: conserve, protect and restore. I believe Canadians want to conserve the west coast way of life. They want to see British Columbia's salmon survive into the future. As many witnesses have testified, we're on the brink. We need to protect those watersheds where the salmon live, in their habitat. We need to restore in some of those areas. Whether it be the lower Fraser or the upper Fraser or the Skeena or the Bulkley or the Nass or on the island, we need to restore where we've caused damage through industrial projects or human habitat. We now know that investment in watersheds will have co-benefits, not just for salmon but for people as well. It's those areas, I believe, that members of the committee feel are incredibly important and a good use of tax dollars.

Another very important issue is that Canadians want members of the committee and members of the government to be fiscally prudent with their tax dollars and investments. That is something where the federal government could play a role with the provincial counterparts, with indigenous governments, with the private sector, with fishing industries, with fishermen and with community-based organizations. You could leverage the investment that the federal government makes and it could go sevenfold with counter-investments or investments from other entities. I think that's where—

**Ms. Elizabeth May:** Fin, forgive me, but I want to try to sneak in one more quick thing.

We know that our Liberal colleagues have made a commitment to planting millions of trees. It hasn't been operationalized yet. Do you have any hints on how we could make sure we get federal-provincial co-operation to actually plant the kind of ecologically appropriate trees to stabilize slopes?

**Mr. Fin Donnelly:** Absolutely. Thank you, Ms. May, for the question.

As I mentioned, Rivershed is part of the BC Watershed Security Coalition. We did a sector survey, and 145 projects came together to say that they could easily operationalize within three to six months over 20 million dollars' worth of projects, just in those projects alone, if a small investment was made. That's the kind of quick action the federal government could do with community-based organizations, indigenous organizations and municipalities that are ready to go.

You could get tree planting happening, restoration happening, in multiple watersheds throughout British Columbia with small amounts of money, targeted amounts of money. Then, of course, you'd need to look at how you can make a significant investment for the country.

**Ms. Elizabeth May:** Thank you, Mr. Chair.

**The Chair:** Thank you, Ms. May.

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

[*Translation*]

**Mrs. Marilène Gill:** Thank you, Mr. Chair.

Mr. Pearce, I'd like to come back to you. I'm going to ask my question the other way around, so maybe we can get another answer.

You said there weren't really any obstacles. So there would be a market and opportunities. Fishers can harvest the resource. So what do you think the problem is?

There's a consensus that part of the solution for salmon could already be implemented. What's the obstacle?

● (1355)

[*English*]

**Mr. Ken Pearce:** I'm not quite sure.... Your sound was cutting out.

Could you quickly repeat that question?

[*Translation*]

**Mrs. Marilène Gill:** I was saying that there was a consensus among the stakeholders on the harvesting of the pinniped resource to address the salmon issue, to some extent.

If there are no market barriers or barriers to hunters and the available infrastructure, what is it that isn't working? There would be a partial solution in the short term.

[*English*]

**Mr. Ken Pearce:** If I understand your question correctly, the solution is already in place. That's because of the infrastructure of the professional commercial fleet and all the infrastructure supporting it. The market is in place but yet to be proven. I understand there's a 400,000 quota on the east coast, and they've had trouble fulfilling that quota because of lack of market. So until we get this in gear and get the trial going, we won't have any definitive answers on that.

[*Translation*]

**Mrs. Marilène Gill:** If there were no obstacles, what help could be given to sealers?

[*English*]

**Mr. Ken Pearce:** The help is in providing employment, and this employment [*Technical difficulty—Editor*]. I'm sorry. The interpretation has been cutting out. I didn't get a clear recognition of your question. My apologies from the west coast, English-speaking....

**The Chair:** I'm sorry about that.

Thank you, Madame Gill.

We'll now go to Mr. Johns for two and a half minutes before we clew up.

[*Translation*]

**Mrs. Marilène Gill:** Thank you.

[*English*]

**Mr. Gord Johns:** Thank you, Mr. Chair.

My question goes back to Ms. Morton.

Ms. Morton, you talked about Washington state and some of the actions they've taken in terms of how they're managing salmon farming. We saw the escape that happened at Cypress Island and how Washington state responded to that escape. We had an escape at Christmastime up at Robertson Island, off north Vancouver Island. We saw how Canada responded. Can you talk about the comparison and how Canada is responding to escapes, sea lice and PRV that's being put in open-net fish farms?

**Ms. Alexandra Morton:** Canada is basically ignoring the problem, whereas Washington state really grabbed it by the horns. They passed legislation to pull the industry out of the ocean to stop Atlantic salmon farming and, most importantly, to stop the spread of this piscine orthoreovirus, a blood virus that causes Chinook red blood cells to rupture en masse.

Also, Washington state, of course, is removing dams. They have a huge commitment to wild salmon. They've proven this on many fronts. Canada has no will behind their wild salmon, and now we are seeing these enormous crashes.

**Mr. Gord Johns:** You talked about creating the position of director of wild salmon, or maybe even an ombudsman, someone who is separate from government, to give government an unbiased analysis—someone like Dr. Kristi Miller-Saunders, potentially. Can you talk about the importance of that?

Right now, we have the B.C. First Nations Leadership Council, organizations like the one Mr. Donnelly is a part of, and the Pacific Salmon Foundation all asking for the government to remove salmon farming from open-net farms. Can you talk about the importance of having that position and what that could do for us?

**Ms. Alexandra Morton:** Salmon stocks are fluctuating wildly. Some are crashing and some are suddenly big, and we have no idea why. People are counting salmon in a different way up and down the coast. There's no unified system. Unless there is a detailed plan.... For example, what the director should do is go out to all the watersheds right now and find out what is going on: take the scientific tools, get everybody counting and measuring the environmental parameters in the same way and provide that data to mathematical modellers. Then, suddenly, the chaos that we're watching starts to make sense and you realize what is going on. It is absolutely key. It is one of the Cohen recommendations.

You have to have someone in DFO whose whole life is understanding not only why these salmon populations are crashing but why some of them are doing well, so that we do have an opportunity to see what is working. As a member of the fish health committee with DFO this winter, I can tell you that there is nobody in DFO whose entire job is the state of Pacific wild salmon.

● (1400)

**The Chair:** Thank you, Mr. Johns. That clews up our questioning for today's committee meeting.

I want to say a special thank you to our guests for presenting here today and answering questions from all members, and also a big thank you to the committee as well for helping to make this probably one of the most informative sessions we've had in a while, I think, when it comes to Pacific salmon.

Thank you to our clerk, our analysts, our interpreters and anyone who makes it possible for us to be able to meet this way.

I look forward to seeing everyone again on Thursday. Take care.