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Comité permanent des pêches et des océans

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(1535)

[English]

The Chair (Mr. Rodney Weston (Saint John, CPC)):

I'll call this meeting to order. We have with us by teleconference today Ms. Alexandra Morton.

I'd like to thank you for joining us today via teleconference, Ms. Morton.



Ms. Alexandra Morton (As an Individual):

Thank you.

The Chair:

My name is Rodney Weston. I'm the chair of the committee.

Before we start, I'll go through just a couple of housekeeping items. If you have some opening remarks, we generally allow about 10 minutes for presentations from our guests.

You'll probably hear a beeping noise throughout, Ms. Morton. There will be some time constraints on our members for questions and answers as we proceed throughout the afternoon. If you hear a beep, don't be alarmed. It's a signal that the time has expired for a certain exchange, and we'll move on to the next one shortly.

I generally don't cut our guests off. Perhaps you could finish your thoughts once you hear the beep. The members know the signal, and they're usually pretty good at adhering to it.

Once again, I'd like to say thank you very much for joining us today. I know the members have lots of questions for you and look forward to the discussion that will ensue.

If you don't have any questions, Ms. Morton, please proceed with your opening comments.



Ms. Alexandra Morton:

I really appreciate this opportunity, and I appreciate you making it so easy for me to appear before all of you.



I just wanted to say a little bit about sea lice. I'm a killer whale researcher, but sea lice are actually very easy to study, and the reason I say that is because they change their body shape every few days for the first month. So when you see a fish, you can see how long it has had each of those lice, and that's how we've been able to study them. We watch the little fish come out of the rivers and we check them at intervals to see how many lice they have. Typically they have no lice, and then they get to the fish farms and they have baby lice. Then, as they go past the farms, the sea lice just mature, and when they get to the next farm, they get more juvenile lice. That's why it has been easy for us to figure out where the lice are getting on the fish.



The reason I and many of my colleagues have such a strong opinion about the sea lice coming from the fish farms is because we've done experiments--not with the fish farmers really coming onside, but we work with them. For example, in an area where there are no farm fish one year, we'll count the number of lice on young fish, and then when they put the farm fish back, we count the lice on the young fish. And the pattern is really clear. If you take the farm fish out, the lice go away. If you drug the farm fish--so you're killing the lice on the farm fish--the lice go away on the wild fish. When you put the farm fish back, the lice come back. If you look at two areas in the same year and one area has no fish farms and the other has lots of fish farms, you find lice where there are farms and no lice where there are no farms.



So we've done a lot of work for 10 years.



There was a little bit of a disturbing comment by Trevor Swerdfager, who said that this work had been seriously debunked. I would like to say they tried to debunk it, but we

were allowed to publish our responses in the journal *Science*, which is arguably one of the two top journals in the world and very hard to get into. They published DFO and they published our response back, so I think it's questionable whether it was debunked at all.



The question about drug resistance in lice...it's inevitable. As soon as you have a monoculture, the parasites increase, because there are no predators and because all the hosts are packed together. So in the wild, sea lice have a very difficult life when they're young. They hatch, and then they have to swim for a period of days before they even have the ability to grab a fish. This means they never get on their mother's fish. That fish is long gone, and they're lucky to find a fish at all. But when you take a salmon farm and you hold the fish stationary, and you crowd them together and you put them in the inshore waters, you're breaking three very fundamental biological natural laws that govern wild salmon. Wild salmon are supposed to move. They're not supposed to be beside the rivers when the young ones come out, and they're not supposed to be crowded together.



What's happening now is the wild fish come in, and for sure, lice are natural and they have lice. They pass them to the farm fish, and then all the wild fish go into the rivers and they die. This really brings down the lice population to nearly zero, but what happens now is that as the wild fish go by the farms, the lice are passing to the farm fish. The wild ones go and die, but the farm fish don't, and they have lights on.... So the fish are crowded and stationary, and as the baby lice hatch, they find fish to attach to and the lice numbers come up. When you've got 600,000 to a million farm salmon in a school, it doesn't take very many lice on them to make billions of larval lice. Lice, like most parasites, reproduce rapidly. They're a very fecund animal.



This means there are many generations of lice, and when you treat them with the drug, you never kill all the lice. If you talk to fish farmers, they all realize you can't kill them all. So the ones that survive are a little bit resistant to the drug and they produce babies. Then, as more drugs are used, of course, the resistance builds.



This is a very serious problem in Norway. The lice are becoming resistant to all the drugs, both in the feed and bath treatments. As for the east coast of Canada, Mr. Swerdfager was debating whether DFO really recognized drug resistance there, but the fish farmers certainly recognize it. They now have three more drugs to use, and the trouble with these further drugs is the one we're using now is in a pellet form and the fish eat it. It does come out through the fish waste. But the other treatments are bath treatments. They drop tarps and they pour the drug in, and it affects the outside of the fish, but then they lift the tarps and this goes into the water.

(1540)



In the areas where there is salmon farming in British Columbia, we have very viable prawn, crab, shrimp, and other fisheries for animals with a shell, and all these drugs they use on the lice attack animals with a shell.



I also want to point out that sea lice are the easy pathogen to study, but the same dynamic is occurring with bacteria and viruses. They get in and they intensify, as they do in all feedlots, and they challenge wild fish at a higher level than they are designed to take.



That's all I have to say. I'm happy to answer questions.

The Chair:

Thank you very much, Ms. Morton.

We're going to start with Mr. Byrne.

Hon. Gerry Byrne (Humber—St. Barbe—Baie Verte, Lib.):

Thank you, Mr. Chair.

Ms. Morton, thanks for appearing before us via teleconference.

We've had some discussions in the past regarding the use of the lights and impact on salmon aquaculture, cage culture, rearing facilities. You made reference in your opening remarks to the use of high-intensity lighting systems as part of farm infrastructure. Could you elaborate a little on your feelings in terms of the consequence to indigenous stocks and the salmon runs?



Ms. Alexandra Morton:

You bet. First of all, it is an enormous concern for commercial fishermen. Lights were banned from commercial fishing in British Columbia some decades ago because they were known to attract everything. Herring fishermen used them to get herring, but they were also catching octopus and other species of fish.



The lights cause lice to reproduce more rapidly because they think it is summer. They also attract plankton. When I do plankton tows near fish farms with lights, I get far more plankton organisms than I do against the farms with no lights. They also attract fish.



There is a growing concern with the number of wild fish in these pens, and I actually laid a charge against Marine Harvest for having wild pink salmon in the pens. The lights are partly responsible for attracting the fish, so they're a very serious problem. Of course, this is a problem that's easily dealt with because they could just turn the lights off.

Hon. Gerry Byrne:

So the consequence is that the lights are magnifying or intensifying the outbreak of lice populations. Could you acknowledge whether I am hearing that correctly? And in your opinion, what is the specific impact this outbreak of lice is having on wild salmon populations?



Ms. Alexandra Morton:

Regarding the lights, you are correct, they cause the lice to reproduce, and they also attract fish to the problem area. So they are a big problem.



When I first discovered the sea lice problem in 2001, they were infecting 99% of the juvenile salmon in the area. Over time, the salmon farming industry has been on the case, and they are now treating their fish with the drug SLICE. However, they are treating their fish every single spring, which is certainly going to make drug resistance happen. But they have to do that to reduce the lice. In the last two years there has been a concerted effort by the fish farmers to treat at the right time, and they have brought the lice down to a level where we were able to get a couple of generations through. We had a look at the pink salmon that were being treated with the drugs last year, and from Campbell River to the area where I live, Broughton, they looked really clean.



What this tells you is that the Norwegian salmon farming industry has become the gatekeeper to our fish. If they clean up their lice problem, we get fish back. Of course, we don't know what their bacterial and viral problems are, but they also have to be considered. It bothers me that industry, and in some cases government, has used last winter's pink salmon returns to argue that wild fish can survive with these salmon farms. That is not the case at all. The salmon farms are the bottleneck that our fish are going through, and as soon as they deal with their lice, we get fish back. The problem is that the drug is a temporary solution.

(1545)

Hon. Gerry Byrne:

Would you be able to categorize the opinions expressed by other groups, for example, the Canadian veterinarian association? I know veterinarians are involved in aquaculture, so obviously the veterinarian association would necessarily be involved in the aquaculture industry. Have they expressed any opinion about this whatsoever? We're dealing with a very technical science here, a drug resistance, so what is their opinion, in your mind?



Ms. Alexandra Morton:

I haven't heard their opinion on sea lice, in general, but I am dealing with Dr. Mark Sheppard in the province. He is a veterinarian in charge of this, and he is saying there is no evidence of drug resistance anywhere in British Columbia. I keep writing him back saying that the graphs on their website, on the Ministry of Agriculture and Lands website, for the area of concern...for a scientist, they're a neon sign warning of drug resistance.



The reason I say that is because they had very high lice levels in this area on the Greig farms. They treated it in October and the lice levels came down to three times the provincial limit, an average of nine per fish, and then they bounced right back up. So I've

asked him, "What is your explanation for that behaviour in the lice after the treatment?" They won't answer. They just keep saying, "We're looking into it", or "It's a concern", or "We don't see any evidence." He won't tell me why that happened.



There's actually an audio clip on CBC from Dr. Larry Hammell from the University of P.E.I. He describes what drug resistance looks like in sea lice, and he describes exactly what's on those charts in the Ministry of Agriculture and Lands website.



So quite frankly, they're not answering the question. I don't see how you can look at those graphs and not see drug resistance.

Hon. Gerry Byrne:

I think we all recognize there are probably a number of different causes or sources of population decline or disappearance in terms of Fraser River sockeye. Would you characterize an explosion in sea lice population in key transit areas as being the critical cause for wild salmon population decline?



Ms. Alexandra Morton:

I would expand that to a pathogen explosion, because a lot of fish farmers now come to me directly; they talk to me and tell me what goes on in these farms. I, unfortunately, can't do much with that information because they don't want to be revealed. They won't tell me the exact site sometimes. The impression I have very clearly is that there are large bacterial and viral outbreaks on these salmon farms.



There was a paper written by Dr. Sonja Saksida that described a massive outbreak of the virus IHN from 2001 to 2003, which infected 12 million farm salmon. The Fraser sockeye swam through that, and that was the 2005 generation that crashed so badly.



Now, the really key thing about those Fraser sockeye is there's a pattern we should be reading. All of the stocks that have been genetically observed going north past Campbell River and the 60 salmon farms from there to the open ocean are in steep decline. The one stock that is observed genetically going out from the bottom of Vancouver Island--they're called the Harrison--is actually increasing. If you pull back your focus, the Somass River coming out of Alberni Inlet, on the west coast of Vancouver Island, goes by no salmon farms, goes straight into the Pacific Ocean. That run of sockeye came back at more than twice what DFO forecast. As well, from the Columbia River to the south, and the Okanagan River, which feeds into the Columbia, those sockeye go straight into the Pacific Ocean. They're in the same latitude, and they did extremely well. They passed no fish farms.



That pattern, to me, says (a) there was a serious problem in the eastern coast of Vancouver Island, and (b) that's where all the salmon farms are. We absolutely need to know what pathogens were on those farms or we will never answer this question.



There are also processing plants spewing blood water into these areas. Some kids went down and videoed the Walcan one on Quadra Island. They put my plankton net right over the end of the pipe, and like it or not, they bottled it all up and put it in a cooler for me to check. Coming out of that pipe were sea lice hatching. They were actually alive. It's the first time I've actually seen sea lice hatch. So that suggests viruses and bacteria are coming out of that pipe, too.



All of that is so incredibly risky to our Fraser sockeye. The fact that only those stocks that are going through that area are in decline is a huge warning sign. If we really want to protect those fish, we need to pull those farms out right now and just test and see what happens. At the very least, we need to know exactly what was going on in them.

(1550)

Hon. Gerry Byrne:

With the shift in certain aspects of jurisdiction from the province to the federal government in December of this year, what specifically would you ask for or anticipate the federal government could do in response to some of your concerns?



Ms. Alexandra Morton:

First of all, I would say the federal government needs to take over the health of these fish. I understand that is going to remain with the province, and that office, in my estimation, is a big part of the problem we're in today because everything I bring to them never seems to come out the other end to the politicians.



Second, they have been run as provincial farms, so when the province says they're highly regulated, they're talking about what happens inside the leases. But now that it's going to become federal and you are responsible for the fish outside the farms, the measurement of impact of salmon farms has to be taken outside the farms on the wild fish. Where is the waste going? It's not good enough to say it's clean under those farms. A ton of food is coming out of those fish every single day and we know it's going somewhere. So find it. We need to measure the lice numbers on the wild fish. That's the indicator of whether it's okay inside the farms. We need to measure the disease. We need complete transparency on bacteria and viruses.



And please, if there is one thing I could beg you to do, it would be to check every single Atlantic salmon facility in British Columbia for infectious salmon anemia just as soon as you can. Minister Shea has taken an extraordinarily risky position on that. She

says there is no strong evidence that this virus comes in the eggs. But the scientists who are studying this out at the University of Bergen are saying that's how it got to Chile. Now certainly these Norwegian companies did not want that virus to go to Chile. Somehow it slipped through the cracks, and I'm not hearing how we're protected. So this scientist, Dr. Are Nylund—it would be great if you guys could communicate with him—said British Columbia is guaranteed to get this virus, and it's the last thing we want with our five species of salmon. He also said we probably already have it.



That would be at the top of my list of requests.

The Chair:

Thank you very much.
Monsieur Blais.

[*Translation*]

Mr. Raynald Blais (Gaspésie—Îles-de-la-Madeleine, BQ):

Thank you very much, Mr. Chair.
Good day, Madam.

Are you relatively optimistic, or pessimistic, about the fact that in the coming months, that is by December 2010, aquaculture in British Columbia will come under federal jurisdiction?

Jurisdictional authority for aquaculture management will be transferred from the provincial to the federal government. How do you see things working out down the road?

[*English*]



Ms. Alexandra Morton:

Well, I'm optimistic, because now, for once, the people who are responsible for the wild fish will also be responsible for the farm fish. In my experience, I've been like a ping-pong ball. I go to the province and say there's this problem; they say DFO said it was okay. So I go to DFO and DFO says the province is managing it. So it's just been back and forth. Now it's all in one house.



I also feel that we need to clean that house up, because the people of British Columbia are saying they want wild salmon as the top priority. What I see is that every time there is conflict, the farm salmon win. We are told that our concerns are not valid. That's why I did 10 years of sea lice research, because DFO told me to prove it because it was anecdotal. They told me they wanted made-in-B.C. science. So I turned my home into a research station and now we've done over 20 scientific papers on this.



It's time to accept the science and move forward. This era of denial has got to end, because I think British Columbia is just not going to take it any more.

[*Translation*]

Mr. Raynald Blais:

I don't want to temper your optimism, but the federal government was involved in this industry to some extent in the past. The Department of Fisheries and Oceans was involved. It had the authority to intervene, and it may possibly have done so, but the problem remains.

Do you really think that because of a transfer in jurisdiction, all of the problems will magically disappear and solutions will be found?

(1555)

[English]



Ms. Alexandra Morton:

I accept that it will not be a magical change. I see enormous work ahead. But we do have the Fisheries Act, which is a powerful toolbox.



Because in 1993 provincially licensed aquaculture was exempted from all the regulations surrounding fishing in Canada, they were protected from using those lakes. They were protected from having wild fish in their pens, from destroying habitat. Somebody put up a shield between this industry and the federal government. Well, I'm hoping that shield will come down.



Honestly, I don't think the Norwegian industry can survive that. I think they will leave. But there's a Canadian industry that is trying to grow here, and I just learned in December that the provincial government would not even meet with these people who are farming salmon and other species on land in fresh water. They have a website called aquaculturebc.com, and they're trying to grow.



For me, the solution is to apply the Fisheries Act full bore on this industry, and if it can't survive, I think the Norwegians, frankly, should go home, because they've just been bullies. Let the Canadian industry grow, and for the people whose jobs are going to be damaged when these Norwegians leave, give them an opportunity to do what they know how to do, which is to grow fish. Work with this Canadian industry. Then you will have an industry that's in the towns. And the money will stay here; it will not go to shareholders. There will be some real salaries instead of the low wages on these farms. You will get your wild salmon, too. This is what will work for these little towns.



The government told me fish farming was good for my town. We have 29 big Norwegian salmon farm sites. Our school is closed now. There are nine people left in my town. It was not good for us. They don't want to hire local people. They're very secretive. All the first nations chiefs and the tourism operators in my area ever said to the industry was to please move over and not go on the major migration routes. But the provincial

government allowed them onto the major migration routes, and that's why we're in the mess we are in today.

[Translation]

Mr. Raynald Blais:

In my opinion, your involvement reflects your social awareness. I applaud your efforts, because it is good for all of the different stakeholders to get involved as much as they can in dealing with problems of this nature.

Do you not think that at some point, what we truly need to resolve this issue is not necessarily a government solution, but rather all stakeholders—not only the industry, but the people and the community as well—working together to find a solution? If we rely solely on the government to resolve the problem, then we could ultimately encounter a number of other problems.

[English]



Ms. Alexandra Morton:

I could not agree with you more. You're absolutely right. Let these towns figure out some solutions here, because in terms of the heavy hand of government and these industries that will not respond, we have been trying to work with this industry. The environmental groups of Canada have made an amazing effort where they've tried to negotiate with them, tried to protect these fish and allow the salmon farming industry to continue. But it gets out of control every time.



So you're absolutely right. There are enormous solutions. People have been very patient, but the response I'm getting from people, because they think I can fix this, is now overwhelming. I have never had so many angry people coming to me hoping that somebody will fix this situation.

[Translation]

Mr. Raynald Blais:

Thank you very much.

[English]



Ms. Alexandra Morton:

Thank you.

The Chair:

Thank you very much.

Mr. Donnelly.

Mr. Fin Donnelly (New Westminster—Coquitlam, NDP):

Thank you, Mr. Chair.

Thank you, Ms. Morton, for coming to the committee and providing your information and testimony. I have a couple of questions for you.

I want to read a comment that we heard at this committee. As you know, aquaculture is one of the possible causes of the decline of the Fraser River sockeye run last year. It was devastated. At a recent hearing, the committee heard that DFO did not "have information that suggests that the presence of fish farms is causing a decline in the wild salmon populations in British Columbia right now". Could you comment on that statement, as well as, turning to sea lice specifically, sea lice outbreaks?

I have two other questions.

Apparently, a while back, there was a fish farm on the west coast that was about to be charged for a violation. Do you know anything about that case, and if so, could you comment on it?

And finally, sea lice outbreaks have occurred elsewhere in the world, so I wonder if you could comment on the link between those sea lice outbreaks around the world and infestations as they affect our wild salmon populations or other fish populations.

(1600)



Ms. Alexandra Morton:

Yes, DFO is a bit schizophrenic at this point. I would say the guys on the ground are seeing evidence, but that information never seems to get to the top. So the fact that DFO has no evidence is irrelevant, in my mind.



First of all, they don't know what diseases are on these farms. Second, they had a front seat on the sea lice epidemics of the Broughton. There was enormous evidence that it was the fish farms, because in 2003 they took all the farms off the migration route, and the number of pink salmon that survived and came back from that generation was greater than ever recorded in the history of studying pink salmon.



That's a paper, actually, by Dr. Dick Beamish. What Beamish took from that study was that fish farms and wild salmon can survive together. That was a very flawed jump in reasoning because what had happened that year in fact was that the fish farms had been removed.



There's a lot of evidence that the farms are affecting the wild salmon. There are a tremendous number of holes in our knowledge about what is going on in these farms for viruses and bacteria.



I don't know which farm was going to be charged. I certainly hope it was the Esperanza site in the Nootka Sound area because they had over 40 lice per fish average; they treated it with a drug and got it down to nine, which is still over the provincial limit, and they immediately started killing their fish. So they got most of them out in time, but I have a crew out there right now, and we're finding that lineage of drug resistant lice on small fish.



Mr. Swerdfager says it's very difficult to test for resistance to sea lice. That's not true. It's actually extremely simple. I don't have the budget or capacity to do it myself. I tried but was unable to do that.



In terms of what is happening globally, let me just say that when I first found sea lice on salmon in 2001, I wrote to scientists in Norway and they taught me how to study them. I wrote them and said we had sea lice all over our young salmon. The first thing the guy asked when he wrote back was, do you have fish farms? So it's very well recognized over there.



I would also point you to a recent release by the United Kingdom's Salmon and Trout Association. One of their patrons is Prince Charles. They have a great condemnation of fish farms; they say they are responsible for destroying wild salmon and trout stocks.



It's interesting, because the relationship between salmon farms and governments everywhere has been extremely tight. Some people are calling it collusion. It seems to be the way they operate. But if you talk to the scientists and the fishery people, like the fishermen or in Europe where they own fisheries, they're all seeing a very strong link: as soon as you put these farms in, you've got a decline in the wild fish; as soon as you take them out, it's coming back.



It's such a simple biological reason. Salmon farms break natural laws that wild salmon have to obey. They have to move; they have to have the predators getting the sick fish. It cannot be crowded near the rivers. I mean, imagine this. All these salmon come home every fall and they die. Why would nature kill a fish that went all the way out into the open Pacific and then made its way all the back to its spawning grounds? This is a successful animal. Nature should preserve that fish and send it out again. But instead, it's dead. And the reason is to break the cycle of disease. So you can't just go along now and break these laws and expect there not to be a problem. We have the problem. We just need to follow the natural laws of the salmon.

(1605)

The Chair:

Thank you very much.

Mr. Calkins.

Mr. Blaine Calkins (Wetaskiwin, CPC):

Thank you, Mr. Chair.

And thank you, Alexandra, for being here. We've met before. I'm not sure if you recall, but I'm certainly interested in asking you a few questions. And I'm very interested in the issue.

My background, just to let you know, is that I have a zoology degree in fisheries and aquatic sciences from the University of Alberta. I've worked as a fisheries technician for Alberta Fish and Wildlife and a conservation officer in the province of Alberta. I've also been a fishing guide. So I've got a lot of interest, particularly in a fish that has a sport fishing value, which of course our Pacific salmon do.

I know you've got a great set of credentials, but if you wouldn't mind, could you just share that for the sake of the committee, so that we can have it as a matter of record?



Ms. Alexandra Morton:

You bet.



I don't have a great set of credentials. I have been doing this for a long time. I'm a registered professional biologist, and I've now written 17 scientific papers that have been published. As a result, Simon Fraser University is giving me an honorary doctorate of science in June.



I've often apologized for my credentials, but Dr. Daniel Pauly, who is one of the best-known scientists in the world and a fishery scientist, told me not to do that. He said, "If you are doing science and it is being published, it has undergone peer review; people with credentials are examining and picking apart your work, particularly controversial work"--as in the case of the science paper, where we actually predicted an extinction. That was an uncomfortable thing for the journal to consider. So they took our data and sent it to Dr. Ray Hilborn, who's also one of the more illustrious scientists on fisheries in the world. He ran the data and got the same results we did.



That is how people attack me--with my credentials--but the science stands. It has now been replicated around the world by my colleagues from many universities, including the University of Alberta.

Mr. Blaine Calkins:

I appreciate that. I appreciate your honesty. If you're a registered professional biologist, I know that has some meaning.

How many journals have you been published in, and how many periodicals have you had? You said 17. Is that correct?



Ms. Alexandra Morton:

It would take a minute to list all the journals, but they include the *North American Journal of Fisheries Management*, Alaskan journals, the journal *Science*, the *ICES Journal of Marine Science* in Europe, and many others.

Mr. Blaine Calkins:

Do you include the *Canadian Journal of Fisheries and Aquatic Sciences*?



Ms. Alexandra Morton:

Yes.

Mr. Blaine Calkins:

That's good.

As a person who obviously takes a science-based approach to this--as somebody who thinks probably along the same lines--it's a very analytical type of process. You've stumbled across this lice issue as a part of your whale research, if I can be so bold as to make that statement.

You mentioned that you have a bunch of colleagues who work with you on various studies. Could you tell the committee who you collaborate with? Do you simply study the issue from the perspective of lice? Do you take into consideration other environmental factors?

The Pacific Ocean is a big experimental jar; it's a big lab, if I can put it that way. A lot of information has come to me. For example, I've read reports and heard that water temperature might be affecting some of the runs. I have an article here today that some research going on gives some astounding numbers. It shows that seals in some of these rivers have killed up to 10,000 adult chum salmon per seal; and on the way out, salmon fry were basically eaten like popcorn by seals. They take 60 to 70 fry a minute.

Can you tell us how some of this other information coincides with what you're saying? Your perspective seems to be solely focused on sea lice. I respect the fact that's the issue you're working on, but can you elaborate on how your research and that of some of your colleagues might be looking at these other issues as well?



Ms. Alexandra Morton:

You bet. First of all, I'd like to say I'm not just fixated on sea lice. There are all the pathogens from salmon farms. We really do have to consider the bacteria and viruses.



Water temperature and salinity are two of the big factors in a sea louse's life. He can't survive--he dies in fresh water and survives better and better as the water becomes more salty. So in the saltier years, you get a higher rate. In the colder years, growth slows down, but they're still out there.



It's like a cornfield. If you have bad conditions and you have no corn in that dirt, you will not get corn plants. But if you put your corn seeds in and you have a great year, you're going to have a beautiful corn crop. If you have a frozen year or flash floods, your corn crop is going to be poor. It's the same with the sea lice. Those other variables affect it, but they're not supposed to be there. They're not supposed to be in the inshore waters. People have argued that they are buried in the mud as adults when the Pacific fish go in, but nobody can find them in the mud.



So we do what we do. Obviously, when those journals review us, they are looking for every other reason, and they pick us apart, and those variables are important.



I think you jumped a little bit to the Fraser sockeye and temperature. I've had the privilege of attending two meetings organized by Simon Fraser University. DFO couldn't be there because of the inquiry, but other than that, everyone whose life is figuring out how many sockeye are going to come back, including the Pacific Salmon Commission scientists and the Simon Fraser University scientists, has been there. They say that in-river temperature has not been a variable, particularly in 2009. Ocean temperature was good in 2009. Plankton was good in some areas in 2009. They had all these things that could be designated green, yellow, or red, and for 2009, they were green, green, green. They actually saw the fish leave the river, and they were bigger than normal, and more abundant than normal because this certain lake is not glaciating as much, and it's more productive. That's another issue. In any case, lots of them went out.



They said to me that something has happened in the last decade and a bit that has made the modelling process of how many sockeye are going to come back not work. There's some new variable they say they can't explain. So when I went in front of them, the first thing they said to me was, "Oh, Alex, you've got to get off your sea lice agenda", and I was like, "Yes, I understand that, but just hear me out for 10 minutes". I talked about the biological laws of these fish and the diseases that are happening. Imagine, in 2003, 12 million Atlantic salmon were infected with IHN virus, and it was jumping farm to farm to farm. This paper showed that. When they brought their smolt boats through, just sucking water up, they got infected, and they brought it to my home in the Broughton and put it in Simoom Sound, and seven more farms got infected. It would be unrealistic to imagine that our wild fish were swimming through that and not getting infected as well. IHN is deadly to salmon and to herring.

(1610)

Mr. Blaine Calkins:

If that's the case--and correct me if I'm wrong--I don't know of any differentiation. I don't know if a sea louse differentiates between a sockeye and a pink. I don't think it does, but I could be wrong. If that were the case, then some of the things we're seeing.... You do have baseline data you can look at where migratory runs go nowhere near a particular fish farm and we're seeing low sockeye returns or different variances on returns in those as well--for example, the Skeena. Am I missing something in the life cycle such that the pinks can come back in record numbers but the sockeye can't, though they're still sharing the same Pacific Ocean in roughly the same timeframe?



Ms. Alexandra Morton:

A couple of things are going on there. First of all, the pinks that came back last year went out in a different year, so we have yet to see the result for the sockeye. Those pinks went out in 2008, so it's a different story with the pinks all together. The fish farmers drug their fish from Campbell River to Port Hardy, and we got the pinks through and they came back.



The Skeena River, as I understand, dropped by about 50%, which is biologically a very different situation from the 98% drop we saw in some of the runs of sockeye—and it was the big runs, which is why it brought the whole thing down.



But think for a minute what happens. When our sockeye leave the Fraser River, most of them go up through Campbell River and then they leave Vancouver Island and keep on going. They run through the River's Inlet sockeye and they mingle with the Skeena sockeye and then they arc around the Pacific Ocean and do a couple of loop-de-loops and then they come back down.



I'm not saying I'm right, but if you go with the theory that it's disease, you have all these sockeye that potentially have disease moving through the farms, and they go up the coast. They're carrying the disease with them. That's maybe why there is a diminishing effect as you get farther up the coast.



My point really is that until we know what is going on in those farms and coming out of those effluent pipes, people like me can come up with any theory we want. But there is a way around this. If we get the fish farmers to tell us what has gone on in those farms for 10 years and we compare that to what has gone on in our enhancement hatcheries—because those are fish we handle, and we really know what's going on—you can track strains of disease. We do it with H1N1. We can do it with fish, but we're not doing it. There is this veil of secrecy, and try as we might, we are not allowed to know what's going on inside those farms. We're just starting to get a little bit of sea lice information, but it's packaged in a way that's very difficult to use.



So until they come forward with their information, my theory is really about the strongest one out there, unfortunately.

(1615)

The Chair:

Thank you very much.
Mr. Byrne.

Hon. Gerry Byrne:

Thank you, Mr. Chair.
Thank you again, Ms. Morton.

On the issue of finding the truth, are you confident from what you know to date about the terms of reference and the mandate of the Cohen commission, the Fraser River sockeye salmon inquiry...? Would you be able to describe for the committee anything positive you feel about the nature of that inquiry and any concerns you may have?

Specifically, is it your feeling that the Cohen commission has or has not the capacity, the jurisdiction, and the legal opportunity to investigate the conduct of salmon aquaculture farms and reveal the information that you have just described as needing to be revealed?



Ms. Alexandra Morton:

I take great hope with the Cohen inquiry. Unfortunately, I've seen many government studies sidelined, so I'm not confident. But they do have the power, as I understand it, to get these disease records and to question some DFO scientists who I think need to be questioned.



I am concerned that they chose a biologist who has already published a report in which he gives his own theory as to what happened to the sockeye salmon. I think they should have picked a biologist who was neutral.



But that said, British Columbia has put a lot of faith in this. There are many people eager to get to work on it. Judge Cohen seems to be a very thorough and excellent choice. So I am optimistic, but their choice of biologist is a concern to me.

The Chair:

Thank you very much.
Monsieur Lévesque.

[*Translation*]

Mr. Yvon Lévesque (Abitibi—Baie-James—Nunavik—Eeyou, BQ):

Thank you, Mr. Chair.
Good day, Ms. Morton.

Further to a recent decision by the Supreme Court of British Columbia, a new system is slated to be put in place by December 2010 to manage the aquaculture industry. I will ask my questions in quick succession, as I only have five minutes, which isn't much time.

Firstly, in your opinion, is the federal government ready for this deadline? Secondly, did you take part in the consultations leading up to the new federal aquaculture regulations? Finally, did the federal government have a choice other than to move forward with this file? For example, could something else have altered the federal government's decision to move forward? You can respond.

[*English*]



Ms. Alexandra Morton:

I'm not confident they'll be ready, particularly since first nations seem to have opposed the most recent draft. I have participated in those consultations as a member of the public.



I have said to Mr. Swerdfager again and again that he has to consider it might not be possible to have this industry in the ocean and also have wild fish. There might not be a way to manage it as long as they use the net pens.



I'm sorry, I didn't grasp the third question.

(1620)

[*Translation*]

Mr. Yvon Lévesque:

Did the federal government have a choice other than to move forward with this file?

[*English*]



Ms. Alexandra Morton:

As I understand it, the federal government can do whatever they want with this industry. I would really like to see the Fisheries Act applied, and if they don't meet that bar, if they simply need to get out of the ocean, I think the support this would have would be enormous. But at the same time, take care of those families, because government, as I see it, made a big mistake here.



We were warning them. I was warning them from 1989 not to put them on the migration route. If you want to gamble with this industry, fine, but you've got to have your ace in the hole. You want to have the wild fish coming and going undisturbed. But because government did not listen to anybody and we've got to this point, there are now families who have mortgages and they're very dependent on the industry, so please take care of them.



I think the federal government does have a broad range of choices, and one of them is simply that there is no right way to do the wrong thing. Holding these things in net pens--Atlantic salmon on top of it--is incredibly risky in what we know in the world of biology today.

[*Translation*]

Mr. Yvon Lévesque:

Thank you, Ms. Morton.

[*English*]

The Chair:

Thank you very much.

Mr. Donnelly.

Mr. Fin Donnelly:

Thank you, Mr. Chair.

You commented earlier about SLICE and you said it was a temporary solution. I'm wondering what in your mind is a permanent solution.

In working with the fish farm companies or the aquaculture companies, I'm wondering how available they're making critical information to you and to the public that you feel is important for the public to know.

The committee is considering initiating both the study on aquaculture across Canada and a study on the Pacific salmon in B.C. I'm wondering what advice you would give the committee before it proceeds with these studies.

Finally, in terms of turning to the inquiry, over a 12-year period, from 1992 to 2004, four post-sockeye fishery season inquiries were called. A total of 96 recommendations were generated. The Williams inquiry acknowledged that DFO had largely responded to the recommendations of earlier reviews. I'm wondering if you could comment on that and what your evaluation or assessment of the federal government's response to these recommendations in past inquiries has been.



Ms. Alexandra Morton:

The permanent solution to preventing lice from becoming resistant to drugs and therefore killing our wild salmon is to put a complete barrier between the wild and farmed fish. That's the only thing that needs to happen here on all of the issues of waste and disease and impact. We just need a solid barrier; just separate the two.



The salmon farms have been extraordinarily resistant in providing information, which I find appalling because they are operating in public waters and the public should know. My community is never told when they are applying drugs. There are all kinds of warnings on these drug bags about handling, and yet people are eating food—clams for first nations, prawns and crabs in commercial fisheries and sport fisheries.



You should talk to Dr. Larry Dill from Simon Fraser University. He was heading up the BC Pacific Salmon Forum, a big study that went on in British Columbia with John Fraser. He quit because of the salmon farms' completely uncooperative nature. They do release a little sea lice information now, but to do scientific tests you have to have individual farms and dates, and the way they clump things makes it impossible for scientists to use the data in their models.



I hope you will look at salmon aquaculture or at what is happening with our Pacific salmon on the west coast. People feel it is the same treatment the east coast got with their cod, when you lost an enormous industry with hundreds of millions of dollars and tens of thousands of jobs.



My advice would be to go to the senior scientists in this province who have dealt with this and to retired government employees who have dealt with it. People have sent me memos written for the last 20 years. The provincial Ministry of Environment fought hard to keep Atlantic salmon farming out. They did not want Atlantic salmon in this province. Even Pat Chamut, as director general of Fisheries and Oceans for the Pacific region, tried to prevent egg imports, and gradually you can see how he was eroded and in the end allowed a lot of eggs to come in. I would go back into history a little bit and look at it.



In terms of the four reviews and the recommendations, I see the same thing in salmon farming, where there are all these recommendations made, lots of money spent studying, and very little done, but I would argue that those reviews did not include salmon aquaculture or the disease epidemics that were occurring there, and if these are indeed our problem, none of the recommendations that were taken will fix the problem. For example, reducing the commercial fishery has been tried. There was no commercial fishery last year, and it has been very low for years now. If commercial fishing were the problem, its reduction should be allowing the salmon to return.

(1625)

Mr. Fin Donnelly:

Ms. Morton, could you provide the list you mentioned of retired DFO officials and senior scientists to the committee?



Ms. Alexandra Morton:

I will.

Mr. Fin Donnelly:

And non-retired ones.

The Chair:

Thank you.

Mr. Weston.

Mr. John Weston (West Vancouver—Sunshine Coast—Sea to Sky Country, CPC):

Alexandra, it's nice to see you, having kayaked in your backyard before and met you, and certainly admiring your perseverance. I understand you have been at this for some 30 years. I thought it would be good for you to know that it was unanimous in this committee that we hear from you, and we're all very grateful for your being here today.

You must be a person who looks at the glass as being half full rather than half empty, or you would have given up long ago. You're at least joined by MPs from all sides of the House in a commitment to the sustainability of the salmon. We applaud you in that goal.

I'd like to go back to the question of the inquiry. It's something that you called for, and certainly that I called for on behalf of people in the riding I represent and other British Columbians. I wrote a letter to the Prime Minister, and my voice was one of many, including yours, and of course an inquiry was called for. You mentioned that it is a government inquiry, but I want to emphasize that it's an independent judicial inquiry, and Judge Cohen has been armed with sweeping subpoena powers to ask anybody anything related to the Fraser salmon.

I want to make sure we get on the record that this was a courageous act and that we are at least in a position to get the kinds of answers we need. You even said in your testimony that we don't know everything. You are modest in saying that, and I think honest in saying it.

Wouldn't you agree that there are some really good things about this inquiry in that it is a judicial one, it is independent, and it does have sweeping subpoena powers?



Ms. Alexandra Morton:

Yes, and I'm sorry if I didn't make that clear.



British Columbia is very happy that this inquiry is happening. The people there are trying to have some faith in it because they're so frightened at this point. The issue of the Fraser sockeye has brought together warring factions from all sides, which is quite remarkable to see, because they simply want these fish.



I've had very good experience in the courts because when I brought the jurisdictional issue before Justice Hinkson, nobody thought it was possible to win on that issue, but it was so clear to Justice Hinkson. I now have charges against a salmon farm for having wild fish in the pens. This judge is allowing us to go forward as much as he is able. So I think the judicial system can see this issue for what it is and can lay it bare a bit more. They are not politicians and don't deal with those constraints. So, yes, I'm very hopeful.



In terms of seeing the glass half full, I'm really just a woman who is cleaning house. They're in the place I love and I just want to see wild salmon survive. I want to be very clear: aquaculture is not the problem; it's just the way this form of aquaculture is being run.



So, yes, I feel very hopeful and hope to be a part of that process.

(1630)

Mr. John Weston:

Thank you.

Let me share my time with another woman who's also committed to the sustainability of the salmon.

Mrs. Tilly O'Neill-Gordon (Miramichi, CPC):

Thank you, Mr. Chairman.

Welcome. It's great to have you here. I listened with interest to the great presentation you gave.

First of all, I have to say that our government is working hard and is very much aware of this concern, mainly because of the fact that we have two great representatives on this committee, by the names of Randy Kamp and John Weston, who certainly put your cares forth to make sure that we all know the concerns of the British Columbia people.

I was looking at the fact that the BC Pacific Salmon Forum has made several statements. I'm wondering about such things as the number of sea lice on wild juvenile salmon that have been decreasing in the Broughton region since 2004. I'm wondering if you agree with the forum on that.



Ms. Alexandra Morton:

Absolutely. There were some great recommendations made by that forum, and I agree that the number of lice has been reduced. It's due to the drug. Unfortunately, that's a temporary situation. That's the concern.



However, the most profound recommendation the forum made was the following. The way the limit on lice is right now, there must be less than three motile lice per farm fish, but the forum said that wild fish outside the pens must have natural levels of sea lice on them. That's a step in the right direction, because if you have three motile lice per farm fish and you have two million farm fish, that's going to be too many. So the way they suggested measuring it on the wild fish is a true and valid measurement, which could actually save wild fish. Unfortunately, it has not been implemented.

Mrs. Tilly O'Neill-Gordon:

Thank you very much.

The Chair:

Monsieur Blais.

[Translation]

Mr. Raynald Blais:

Thank you very much, Mr. Chair.

When I spoke for the first time earlier, I asked you a series of questions. I had a question in mind about seals. I came across an article in today's issue of *The Globe and Mail* that labelled seals as serious predators of west coast salmon.

I simply want to know if you have an opinion on this subject. Are seals considered predators? It's a known fact that the seal population has increased considerably. I'm from Atlantic Canada, from Quebec, and we know a great deal about seals. From what I understand, the Pacific seal herd has also grown considerably in size. I'd like to hear your opinion as to whether seals are predators of salmon.

[English]



Ms. Alexandra Morton:

That's a very good question. Fortunately, I just attended a presentation by Dr. Andrew Trites on this exact subject in terms of the Fraser sockeye. What he said was twofold. One is that they pick up the scat from seals and analyze what these seals have been eating. In general, for the harbour seals of British Columbia, 3% of their diet is salmon, which is very small.



But there are specific locations and river mouths. Seals are like dogs: they're very smart, and if they get onto something, they'll stick with it. In some instances, there are seals that have learned to target certain populations of salmon, in which case, as I understand it, they are doing enormous damage. But these are very localized situations that would need to be addressed individually. If you were to go out and kill all the seals today, you would not be protecting salmon, because what they are actually eating is different fish.



One thing he brought up is that one of the fish they prey heavily on, hake, is actually a predator of juvenile salmon. So the seals are helping reduce another predator. You have

to be very careful with these natural systems. But no, seals are simply not responsible for what's happened to the Fraser sockeye.

(1635)

[*Translation*]

Mr. Raynald Blais:

In conclusion, in the same *Globe and Mail* article, mention is made of a study done in Scotland—I'm reading this now for the first time—that showed that by removing a single seal from the Moriston River, sport fishing increased by 17%, while the results with respect to other rivers varied anywhere from 1% to 33% in terms of an increase in salmon fishing.

On the east coast, the grey seal, which is in a different situation than the Greenland seal, since the hunting of this species is not only controlled, but tightly controlled, and perhaps overly so in the opinion of some, is found more often in our rivers. This can be seen from the lobster population and increasingly, from the salmon population.

Mention is made of this fact in the article in question. Do you have any thoughts on the subject?

[*English*]



Ms. Alexandra Morton:

As I said, these are localized effects. I have no doubt of that study, but you have to talk to the scientists who have been following these animals around. Dr. Trites' whole life is studying pinnipeds, which are seals and sea lions, and he is telling us, from looking at their scat—which is a nasty business, but they do it—that 3% of their diet is salmon.



So if you were to take the seals out and allow the hake to rise in population, it's very likely that you would cause more damage than if you left the seals there, which is natural. That said, there are specific rivers where I understand there are problems, and I would say that would require individual management. But overall they are not the problem we're having with our Pacific salmon.

[*Translation*]

Mr. Raynald Blais:

Summing up, I think we need to be cautious about figures and statistics, as you know full well.

As you noted, salmon accounts for 3% of the diet of these seals. The same thing was said about cod. However, it must be remembered that when seals, in particular Greenland seals, eat cod, they do not eat the entire fish, but rather only one small part of it. For that reason, the fact that cod accounts for only a small percentage of the seal diet does not necessarily illustrate very clearly the correlation between seals as cod predators and the exact quantity of fish they consume.

In any event, it is all relative.

Thank you very much, Madam.

[*English*]

The Chair:

Thank you.
Mr. Donnelly.

Mr. Fin Donnelly:

Thank you, Mr. Chair.

Ms. Morton, I have just one last question. The B.C. sockeye salmon fishery is currently being assessed to be certified as a sustainable fishery by the Marine Stewardship Council, MSC. There have been objections to this certification that have been filed with the accreditation body in the past little while, and it's based on the sockeye collapse of the summer of 2009. I'm wondering if you can provide any comment on this. I know this is different from the sea lice topic and the fish farm topic, but it's potentially related to this collapse. But overall, on the problem of certifying a fishery, I'm wondering if you could comment at all on this.



Ms. Alexandra Morton:

If they certify a fishery that's been in decline for 10 years, with virtually no commercial fishing for the last three years, we could take it that the certification is invalid.



If you look to Alaska, they're actually having record runs of sockeye. That's where you might want to go certify a fishery. The western Pacific and Russia are seeing huge runs of wild salmon, so the certification process is....



I don't know how they could possibly certify the Fraser sockeye in the state it's in right now. It's near extinction.

(1640)

Mr. Fin Donnelly:

Thank you.

If I have a little time remaining, I'm wondering if there are any last messages you want the committee to hear. Do you have any final thoughts you could leave us with?



Ms. Alexandra Morton:

Thank you. You read my mind.



I've been out and about in the Broughton Archipelago, a beautiful, remote area, for 26 years, and I just want to tell you that the oceans are not dying. When I arrived, there were no humpback whales. There are now 27 whales that use the area. The sand lance population, which is a very, very energy-rich fish, is bigger than it's ever been. Nobody has seen it this big. We have pilchard back, which were gone for 90 years. The Pacific white-sided dolphin population is in the thousands.



A lot is going right in our oceans, and the fact that our salmon are declining, when the western Pacific and the Alaskan ones are not, is an indication that we can fix this.



I so hope that you let us do this. If fishery management became more localized, if DFO became an organization that worked with people and you took the scientists out of the political body of DFO and let them be what they were at the fisheries research boards.... They were cutting edge. They were the leading fishery scientists in the world.



If we just took a few simple steps, Canada could be an example around the world of how we could have our fish and our communities thrive.



To your committee, thank you so much for having me here today. I see a lot of movement happening, and I'm hoping that we can all follow through and solve this. It's not about anybody losing; we all win. The Norwegians, if they have to go home, will still fish farm. Those European shareholders will be fine. It's the communities of British Columbia we need to be concerned about.



So thank you so much, all of you.

The Chair:

Thank you.

We'll go to Mr. Allen.

Mr. Mike Allen (Tobique—Mactaquac, CPC):

Thank you very much, Mr. Chair.

Ms. Morton, thank you for being here.

I just have a couple of questions. One is related to the theory and the reasons for the changes in the salmon run. The second is about your opinion on regulations.

There was an article in the *North Island Gazette* about the record pink return. One of the things it pointed to, and I'm sure you're aware of it, was the predicted demise of the pinks by 2011 because of fish farms. They have increased the number of sea lice, which, in turn, have threatened juvenile salmon. The study concluded that sea lice typically kill over 80% of the fish in each salmon run, and if sea lice infestations were to continue, affected pink salmon populations would collapse by 99%. Obviously, the article goes on to say, because of the positive returns, this hasn't happened.

One of the things it said was that the extinction forecast hasn't materialized because fish farms are doing a better job of managing their farms, and the extinction prediction was based on nothing changing. However, Ian Roberts, the spokesman for Marine Harvest, which operates the majority of the farms, said they haven't changed their process in years with respect to what they are doing about sea lice. He said they'd been consistent. They're still operating and treating for sea lice in the same way and are consistent. So there's obviously another factor in place.

I'm just asking whether, on that basis, there are other theories behind this.

Second, based on the fact that you disagree with the aquaculture management regime, what, in your opinion, is the best jurisdiction in the world in terms of regulation?



Ms. Alexandra Morton:

Ian Roberts needs to go under oath.



There's an alliance of environmental organizations in British Columbia called the Coastal Alliance for Aquaculture Reform. They have spent millions negotiating with Marine Harvest. This includes the David Suzuki Foundation, Living Oceans, the Georgia Strait Alliance--large organizations. I would say they arm wrestled—people might use other terms—Marine Harvest into a stringent drug treatment program. When I first found the sea lice infestation in 2001, that was not the case. Ian Roberts would need to check his words carefully to assure you that the drug treatment regime on Marine Harvest was the same in 2001 as it is today. I think he should really be careful with what he has said there.



In terms of what jurisdiction this has worked in, none, zero. It's really an interesting phenomenon. Norway is very different from British Columbia because they actually want people on every single kilometre of their coastline, on every island, and the public don't seem as attached to wild salmon, so there hasn't been the economic issues with salmon farming. There are actually farms everywhere, and they seem a little bit more accepting of it. Except now, because the lice are becoming resistant to all the drugs, there is a lot of conflict going on. I don't know. At this moment, they're trying to pick between wild and farmed fish.



Interestingly enough, John Fredriksen, the wealthiest man in Norway, and also the largest shareholder of Marine Harvest, for some reason did a press conference on a river mouth where he said to get the fish farms away from his river. Of course, we're all wondering, what about our river? Georg Fredrik Rieber-Mohn, the ex-Attorney General of Norway, said, get them away from the rivers.



In 1991--there's a record in Hansard--Jon Lilletun, from the Norwegian Parliamentary Standing Committee on Energy and the Environment, spoke before some federal committee and said they had very strict laws in Norway. Fish farmers said, "We will do as we like. We will go to Canada." He said, "This is a very hot subject, I think." He was trying to warn you.



I can't really speak for other countries, but what happened to me, to my community, and my area is that fish farmers came in and we were told that we could govern this industry. We were told we could pick where it would not be placed, and the government actually made maps with red spots. In the waters of my home they said there would never be a fish farm there, and then they put more fish farms in those red spots than the green ones. This is a case of breach of public trust, of mismanagement.



Honestly, the one question I can never answer is, why did we let this happen? Why was it given to the province to handle? That was not legal. Somebody must have noticed that. Why was the advice of scientists within DFO, of scientists within the Ministry of Environment, ignored every step of the way? If the industry had been put into some side channels, kept small, there wouldn't be an issue. We wouldn't be at this flashpoint. But I think we're going to test, in the next few weeks, how much British Columbia really cares about the wild salmon.



There's no reason for this conflict. We could easily have both, but, and this is something in the back of my mind, wild salmon are inconvenient to a lot of people because you have to say no to people who want to dam rivers, log, mine, drill for oil, and on and on. Norway is a big partner in the tar sands oil. Maybe the federal government doesn't want to ruffle their feathers. Honestly, nobody can figure this out. Why would we let this happen? We have one of the greatest fisheries on earth and we're willing to throw it away for some low-paying jobs. I don't understand it.

(1645)

The Chair:

Thank you very much, Ms. Morton. On behalf of the committee, I'd like to say thank you very much for taking the time today out of your busy schedule to appear before us and answer a lot of the questions our members had. I really do appreciate you taking that time.

Mr. Byrne.

Hon. Gerry Byrne:

Thank you, Mr. Chair.

I just want to intervene, if I could, to bring up a point of previous business. During testimony from the Minister of Fisheries and Oceans and officials, I asked for help to confirm the department's conviction that the fishery was indeed a public resource. I had asked for a list of licence holders. Included in that was a list of licence holders, their quota, and the specifics of the licences they held. The department committed to me that they would provide the clerk with that information in 14 calendar days. We've now passed that date. Would you be able to report to the committee as to whether or not that request has been fulfilled?

(1650)

The Chair:

The clerk has advised me that there was extensive research involved, and it was necessary in order to compile the list that you're requesting for the committee. So it has been delayed for that reason.

Hon. Gerry Byrne:

Should I take from that that the department is indeed viewing this information as being available to the committee? The question that had been raised by officials was whether or not it was covered under the privacy laws, if I remember correctly. I'm assuming the department is indeed going to release that information; it is just a question now of compiling it for release.

The Chair:

That is my understanding, that they are compiling the information and it has taken more research than originally anticipated to compile that list. But they are intending to provide that information.

Hon. Gerry Byrne:

Good to know.

The Chair:

Thank you, Mr. Byrne.

Mr. Kamp.

Mr. Randy Kamp (Pitt Meadows—Maple Ridge—Mission, CPC):

Just to clarify on that point, I think you'll see from the record that they said it might take them two weeks to answer the question of whether they could provide it, and then it would take them some time after that. But my understanding is that they've confirmed that they can provide it and they're in the process of compiling it.

The Chair:

Thank you very much.

There being no further business, Ms. Morton, once again thank you very much for taking the time to appear.

This committee stands adjourned.