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Chair

Mr. Rodney Weston

Standing Committee on Fisheries and Oceans

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• (1540)

[English]

The Chair (Mr. Rodney Weston (Saint John, CPC)): I call the meeting to order.

I'd like to thank our guests for appearing before us today as we continue our study on invasive species. We look forward to your testimony and the opportunity to ask questions of you.

Ms. Neary, I believe you're going to lead off with a presentation today. During your presentation, if you don't mind, introduce your associates here with you today.

I believe the clerk has probably informed you already that we generally allow about 10 minutes for opening presentations. Then, if I interrupt you during the questions, it's in the interests of fairness, as I'll be trying to ensure that all members have similar amounts of time to ask questions and receive answers. So I apologize in advance if I cut you off or if I motion to you in advance for you to wrap it up.

Whenever you're ready, the floor is yours, if you want to proceed with your presentation.

Ms. Anne Neary (Director, Applied Research and Development Branch, Ontario Ministry of Natural Resources): Thank you, Mr. Chair, and members of the committee.

On behalf of the Ministry of Natural Resources, I'd like to thank the committee for the opportunity to discuss aquatic invasive species with you today. I'm Anne Neary. I'm the director of the Applied Research and Development Branch with the Ministry of Natural Resources.

With me today is Ala Boyd, the manager of our biodiversity policy section; Tim Johnson, our senior research scientist for the Great Lakes; and Francine MacDonald, our senior invasive species biologist.

The Ontario Ministry of Natural Resources, as you perhaps know, is the provincial government lead for aquatic invasive species. We develop and enforce legislation and policy on invasive species and are responsible for fisheries management in Ontario, including the Great Lakes.

Over the next 10 to 12 minutes, I'm going to quickly go through some of the threats posed by aquatic invasive species in Ontario and then briefly cover some of the actions we're taking.

The Great Lakes basin ecosystem is one of the most biodiverse in Canada. It's home to thousands of species of fish, wildlife, and plants and is vitally important to the economy of Ontario. In fact, the

combined value of the Great Lakes recreational and commercial fishery to Ontario is estimated to be more than \$650 million annually.

Since European settlement, more than 180 non-native species have become established in the Great Lakes. The most problematic have been round goby, sea lamprey, zebra mussels, and quagga mussels. These species are considered invasive. We refer to them as "invasive" rather than "non-native" because of their ability to cause harm to the environment, economy, and society.

These species have altered the food webs in the Great Lakes. They've contributed to the decline and disappearance of fish and wildlife and have contributed to unanticipated human and wildlife health concerns, such as botulism outbreaks and harmful algal blooms on the Great Lakes. The impacts on society and the economy have been equally significant. Zebra mussels alone cost Ontarians about \$100 million annually in control measures at nuclear power facilities and water treatment plants. I'm sure you have also heard of Asian carp, a recent significant threat to Ontario's Great Lakes. Ontario is taking action on this front. It is clear that prevention of new invasive species, particularly Asian carp, is by far preferable to and less costly than attempts to eradicate or control these species once they've arrived.

The fisheries of the Great Lakes are far too important to the interests of Ontario and Canada to not take preventative action. Ontario has delegated authority under the Fisheries Act for fisheries management in the province. Under this authority, our ministry develops Ontario fishery regulations and is responsible for their administration and enforcement. Regulation changes are approved by the federal Governor in Council.

Before 2005, live Asian carp were imported into Ontario for human consumption. Ontario recognized the significant threat they posed to the Great Lakes fishery, and through these regulations we made it illegal to possess live Asian Carp as well as other high-risk invasives, such as northern snakehead.

We give high priority to enforcing these regulations, and our conservation officers work cooperatively with the Canada Border Services Agency to prevent live Asian carp from entering Ontario. Since 2010, MNR has seized six shipments of live invasive carp at the U.S.-Canada border. These seizures have highlighted the need to consider additional regulations or tools to improve compliance.

In 2011 we worked with Fisheries and Oceans Canada to develop a provincial rapid response plan for Asian carp. The plan guides our actions if Asian carp are detected in Ontario waters. Our scientists are working with Fisheries and Oceans Canada and the Great Lakes Fishery Commission on binational, biological, and socio-economic risk assessments for Asian carp. Risk assessments help us understand the potential impacts to the Great Lakes and identify areas of the lakes that would be most vulnerable to invasion.

However, Ontario's actions to address Asian carp cannot succeed in isolation. Actions in the U.S. are required to prevent the introduction of Asian carp into Lake Michigan through the Chicago Sanitary and Ship Canal, as inaction will have profound impacts for Ontario.

We closely monitor activities in the U.S., we've communicated our concerns, and we've supported U.S. efforts that will protect Ontario. For example, in 2009, Ontario supported the State of Michigan's motion to the U.S. Supreme Court for a preliminary injunction to close the Chicago Sanitary and Ship Canal. Since that time, we have been encouraged by the U.S. government and the State of Illinois' efforts to develop an effective control strategy for Asian carp.

In addition to working with our U.S. partners in binational waters, it is important that Ontario keep its own house in order by having a province-wide strategy for all invasive species. For this reason Ontario just recently developed an invasive species strategic plan. It's an inter-ministerial plan with the Ministry of Natural Resources as the lead and includes the provincial ministries of agriculture, environment, and transportation. The plan builds on the national strategy on invasive alien species, namely, prevention, early detection, rapid response, and management and adaptation.

Our strategic plan highlights Ontario's existing work, and identifies gaps in current programs and future actions to address priority areas.

Leadership and coordination are fundamental to the plan. Invasive species are a complex problem and no single ministry or government is engaged in all aspects of this issue. We must continue to work together and establish clear federal and provincial roles and responsibilities. This is particularly important with respect to rapid response, control, and management.

Legislation, regulation, and policy can be very effective. For example, since the implementation of Canada's ballast water regulations, no new invasive species have been detected in the Great Lakes since 2006. This is a huge step forward.

But gaps still exist in Canada and Ontario's regulatory tools. For example, aquatic invasive plants used in the water garden industry, such as European water chestnut, are not covered by federal legislation that prevent their import to Canada. Over the past decade, Ontario and Quebec have invested hundreds of thousands of dollars in eradication programs for these plants.

We're very encouraged by the aquatic invasive species regulatory framework that Fisheries and Oceans Canada recently proposed. The framework will provide a comprehensive approach to regulating the import of invasive species and enable their control and eradication. However, new authorities bring increased responsibilities, which cannot fall solely to Ontario. Fisheries and Oceans Canada and the

Canadian Food Inspection Agency must continue their roles in prevention, detection, and control. Ontario is working with Fisheries and Oceans to better understand its roles and responsibilities, and the roles and responsibilities of the federal government as well.

Understanding the risk and impacts and the likelihood of occurrence of aquatic invasive species is crucial to knowing how to manage our resources. We're working with Fisheries and Oceans Canada's Centre of Expertise for Aquatic Risk Assessment on the key invasive species threatening Canada, specifically the Great Lakes region. Our scientists also work with the Canadian Aquatic Invasive Species Network in Windsor to develop rapid response models for invasive species.

Research and monitoring are essential to understanding invasive species. They allow us to assess impacts and identify new and innovative control measures. The Ministry of Natural Resources is leading research on the impacts of invasive species such as quagga mussel, round goby, and bloody red shrimp in the Great Lakes food webs. With advances in technology, our science programs are also evolving. For example, our scientists are investigating the application of environmental DNA as an invasive species detection tool, and we're also involved in research to develop innovative control measures for round goby.

The leadership shown by the federal government in sea lamprey control is critical to protect our Great Lakes fishery. Our reliance on Transport Canada to continue to inspect ocean-going vessels and make sure they comply with ballast water regulations cannot be overstated.

We recognize that neither the federal nor the provincial government can succeed alone. The role of citizens, communities, and other levels of government and organizations in invasive species prevention has been a core component of our invasive species program for over two decades. We partner with organizations such as the Ontario Federation of Anglers and Hunters to increase the awareness of anglers and boaters of the importance of prevention, and we've had great success.

● (1545)

The federal government has also been engaged in Ontario's invasive species strategic plan. We recognize the government as a key partner in our strategic plan, given the strong linkages to the national strategy.

A good example of our partnership is the joint Canada-Ontario Invasive Species Centre in Sault Ste. Marie. Ontario committed \$15 million over five years in 2008 to develop the centre. Its primary objective is to coordinate federal and provincial efforts and, in doing so, optimize our resources to address invasive species. Over the past five years, more than 100 partnership projects have been funded by the ministry through the Invasive Species Centre. Federal partners in the centre include Fisheries and Oceans Canada, the Canadian Food Inspection Agency, the Canadian Forest Service, and Environment Canada.

Both of our governments are dealing with significant financial pressures and have announced plans to eliminate the deficit. Key departments involved in aquatic species are proceeding with regulatory reform. Changes may have significant impacts on the delivery of our programs and partnerships.

With Environment Canada's recent cancelling of funding for its invasive alien species partnership program, the federal government and the provinces must seek new ways to engage our Canadian citizens. Invasive species are a problem that we can't combat alone. Environmental groups have been and will continue to be key players in preventing their introduction and spread. In these challenging economic times, continued investments in prevention and early detection are critical. These are far more effective and less costly than managing established invaders. The federal government has a lead role in aquatic invasive species prevention, from preventing ballast releases to the Great Lakes to developing national regulations preventing the import of invasive species of concern to Ontario and Canada.

Some of the proposed Fisheries Act changes dealing with fish habitat and fish health are also of importance and interest to Ontario. With the exception of fish habitat, the management and administration of Ontario's inland fisheries have been delegated to the province. A weakening of legislation may compromise our ability to successfully manage our fisheries and conserve biodiversity.

We support streamlined and enabling regulatory tools to better manage Ontario's fisheries, but it is important that we work closely together with the federal government to adopt consistent approaches. Effective implementation can occur only with the provinces at your side, laying out roles and responsibilities together.

Ontario is also facing major financial pressures. It's critical that both levels of government work together to make the best use of our available funds. Greater collaboration by governments during fiscal constraint will be critical in due diligence and delivery. We need to resolve this together.

In summary, as Ontario moves forward to implement its invasive species strategic plan, we hope to continue to benefit from the federal government's ongoing efforts and regulations to protect Canada from the consequences of invasive species. We must build on our history of strong collaboration and positive relationships as we develop legislation and policy, deliver programs, and do the right research and monitoring to allow us to prevent and respond to the threat of invasive species. The biodiversity of our nation and the important fisheries of Ontario depend on it.

Thank you for the opportunity to address the committee.

• (1550)

The Chair: Thank you very much, Ms. Neary.

We're going to start with Ms. Davidson for questions.

Mrs. Patricia Davidson (Sarnia—Lambton, CPC): Thank you very much, Mr. Chair.

Thank you very much for your presentation here this afternoon and thanks to your colleagues who have joined you here to answer our questions.

This is an area that we have a great deal of interest in. Several of us are from the Great Lakes area and we're certainly seeing first-hand some of the devastation that's being caused by some of the invasive species. We do know that your ministry in Ontario certainly plays an extremely important role, so I was glad to hear you speaking of the coordination and the working back and forth, not only with the federal jurisdictions but also with the American jurisdiction.

One of the things you started off with—and I may have misunderstood you—was the value of the sport and commercial fishery in Ontario. I thought you said that it was \$650 million annually, but we heard from the DFO people that it was a \$7 billion industry annually. Are we talking of different areas or...?

Ms. Anne Neary: For Ontario, or all of Canada and the U.S.?

Mrs. Patricia Davidson: For the Great Lakes.

So you were just talking Ontario then, were you?

• (1555)

Ms. Anne Neary: Yes, we were just talking of Ontario. It is in the billions if you look at the U.S. economy and other...

Mrs. Patricia Davidson: So it's \$7 billion then across the Great Lakes, with the total industries. Great.

You also talked about regulations and the enforcement of things. You talked about the ballast water regulations. We've been told that the States has just passed new regulations that will be coming into force next month.

How is that going to affect Canada? Do you know if there are going to be regulations passed here that will be the same?

Ms. Anne Neary: Are you talking specifically about ballast water regulations—

Mrs. Patricia Davidson: Yes, ballast.

Ms. Anne Neary: —in the U.S.? Maybe I'll ask Ala to provide more information on that.

Ms. Ala Boyd (Manager, Biodiversity Branch, Biodiversity Policy Section, Ontario Ministry of Natural Resources): I will provide a little bit more information and then I'll look to Francine.

Yes, the U.S. recently passed new regulations, providing a consistent framework that will enable consistent regulations to be applied for ballast water management across the entire basin.

Before now, each individual state was responsible for providing oversight on ballast water. Some states, such as New York, were looking to pass very significant and very aggressive state legislation that would have exceeded, in fact, what Canada has put into place through Transport Canada. So yes, there has been a recent move to pass new regulations, and we have been very supportive of the U.S. efforts in that regard.

Francine, would you like to add to that?

Ms. Francine MacDonald (Senior Invasive Species Biologist, Biodiversity Branch, Biodiversity Policy Section, Ontario Ministry of Natural Resources): Yes, maybe I will add just a little.

Mrs. Patricia Davidson: Maybe you could address something that's unclear in my mind. I have asked this question before of other witnesses. What's the difference with a ship that coming through? Where's the differentiation? Where do they have to abide by the U.S. rules and where do they have to abide by the Canadian rules?

Ms. Francine MacDonald: There's joint enforcement of the Canadian and U.S. regulations. Right now, the difference between the Canadian and U.S. regulations is that Canada's regulations are more comprehensive. They deal with ships that have ballast and ships that don't have ballast—the no-ballast-on-board ships, which I'm sure you've heard of them.

Currently, the U.S. regulations do not deal with NOBOBs. So that has been an area of concern for a number of jurisdictions across the Great Lakes, particularly the Great Lakes states. As Ala said, a number of those states have introduced their own regulations, which causes problems because shipping is at the international level, not the regional level.

So what the U.S. Coast Guard has done is to introduce an environmental impact statement outlining their plan to create regulations that will develop a standard for ballast discharge. That ballast discharge standard will be consistent with the Canadian regulations. Assuming that that process goes through and is approved, we hope it will be consistent with the Canadian regulations.

Mrs. Patricia Davidson: Thank you.

Ms. Neary, you also talked about Ontario's having an invasive species strategic plan. Can you talk to us about that, whom you work with on that, and if there were an issue, how that plan would come into play?

Ms. Anne Neary: It was a plan we developed over the last couple of years. We're just in the stages now of finalizing that plan. We posted on what's called our environmental registry for comments, so it went through that process, and we're at the point now where it's going to be finalized.

It was developed in conjunction with other ministries. We had the ministry of the environment at the table, and we spoke to the ministry of agriculture. We have a number of groups. As I mentioned, it's based on prevention, detection, response, and then management and adaptation.

I'll ask Ala to talk about how it will work once it's in place and whom we will work with. We had a bit of an exercise on rapid response for Asian carp and it basically followed the plan itself, but I'll ask Ala to talk about the plan.

Ms. Ala Boyd: Thanks, Anne.

As Anne mentioned, Ontario's invasive species strategic plan has been in development for the last couple of years and we've worked with numerous ministries to develop the strategic plan.

It lays out our primary objectives for managing invasive species and also builds on the fact that there are numerous gaps and weaknesses in the provincial infrastructure, if you will, to manage invasive species. So we've identified several areas of priority focus, including improved leadership and coordination, while being respectful of the roles and responsibilities held by involved agencies.

For example, we recognize that our ministry of agriculture and food has a specific role to deal with invasive agricultural plants, but we have a specific role that enables our ministry to deal with aquatic invasive species.

We have also identified legislative policy gaps that will need to be addressed; research and monitoring gaps; science issues; and issues of risk assessment.

As well, there is a need to continue to conduct outreach and engagement to build greater public awareness among our stakeholder communities, our partners, and citizens at large. The single most important thing we can do collectively is to continue to see an educated and aware public that is taking individual action against inadvertently or otherwise moving invasive species or introducing invasive species. Most of the introductions of invasive species we've seen in Canada have been by very well-intentioned and well-meaning citizens who simply failed to understand the impact of some of their actions.

• (1600)

The Chair: Thank you, Ms. Davidson. I'm sorry, your time is up.

Mr. Chisholm.

Mr. Robert Chisholm (Dartmouth—Cole Harbour, NDP): Thank you, Mr. Chairman.

Thank you very much for being here today to speak with us.

I'm a member of Parliament from Nova Scotia, but let me assure you that as a member of this committee and as the fisheries critic for the official opposition, I am very seized by the concerns that have been brought before this committee about the problems with invasive species in the Great Lakes. It's a huge and complicated issue.

I marvel at the challenge your organization, and the federal government, the U.S., the commercial fisheries, the land owners, and environmental groups all face in trying to grapple with these species, as well as the complexity of understanding the connection between the different species. We heard the other day about the goby that eats the mussels that created botulism—it's unbelievable—plus the sea lamprey and so on. Clearly, the partnerships are pretty key, to say nothing of the determination of staff like yours.

Ms. Neary, you raised concerns about the proposed changes to the Fisheries Act, particularly as they relate to habitat protection. I wonder if you would speak to those a bit because, in some of the testimony I've heard over the past couple of weeks, habitat is so difficult to nail down, as it's so interrelated. Would you speak to that?

Also, would you advise the committee whether or not you or your department was advised of the proposed changes before they were introduced in the House a couple of weeks ago?

Ms. Anne Neary: To start with, I think we're certainly very supportive of enabling tools and trying to streamline our policies and regulations, and the provincial government is going through a similar exercise. I think it's necessary.

The challenge with the changed wording of the Fisheries Act is that I think we aren't fully aware yet of what it will mean for us. We've been working with the Department of Fisheries and Oceans to try to better understand what the wording changes will mean. When we're talking about habitat it's pretty clear what we're talking about, rather than ecosystems and "adverse impacts to fisheries".

I'll tell you a little story. I was previously with the Ministry of the Environment, and a lot of their legislation deals directly with adverse impact. It's that kind of wording that makes it difficult to understand the level of enforcement, how far down the road you can go to justify those words "adverse impact". It's understanding what the new wording means and the definitions around the new wording that will help Ontario understand its role.

In that respect I think it will be a challenge. It's certainly a challenge that we face every time new legislation comes in. It's more a matter of working through what it will mean for the province, for the federal government, and where our roles and responsibilities diverge and where they meet.

We did find out early on that you were considering changes but weren't sure what those changes were. I'm with the applied research group, so we wouldn't find out immediately. We would probably find out through the work we do with our policy folks.

Ala, do you have anything to add?

• (1605)

Ms. Ala Boyd: Well I can echo what Anne has spoken to. We have not seen any of the specific details of the changes to the Fisheries Act with respect to the fish habitat provisions, but we're anxious to receive some of the details and continue to work with the Department of Fisheries and Oceans to better understand the implications of what it means for Ontario.

Mr. Robert Chisholm: I appreciate very much what you said about the responsibility of the federal government on the moves it has to make and so on, and that you will work with those and continue to carry out your mandate as best you can.

I guess what I'm trying to get my head around, as I think some members of this committee are too, is what the effects will be. I think that's where you're coming from; it's about what the effects of these changes will be. It's important for us to hear from people like you who deal with this on a daily basis and with the consequences of events both immediately and down the road with all kinds of different effects.

Would it not make some sense to you, and would you not agree, that before these changes were to become law that there be a full consultation so that bodies like yours would have an opportunity to examine them, have input, and ensure the final changes that are made do the less harm?

Ms. Anne Neary: Certainly we would welcome the opportunity to provide comment on what the changes mean. When you have something before you to provide comment on, it's often difficult without having the dialogue as well. The dialogue always helps to meld, I guess, what the words mean. As anybody knows who deals with enforcement of legislation, it gets down to what those words mean and what we can do. What tools can we use to adequately enforce the legislation?

Certainly we would welcome dialogue and consultation.

Mr. Robert Chisholm: That's it, Chair?

Okay, thank you very much.

The Chair: Thank you very much, Mr. Chisholm.

We'll go to Mr. Kamp.

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

Thank you, ladies and gentlemen, for appearing before us. I appreciate the information you're providing.

On this last issue my colleague has raised, the wording of the act is certainly out there for public review. I think you can look at the details of that and begin to form your opinions on the actual wording. By the way, it doesn't use the words "adverse impact". The prohibition uses the words "serious harm" to fisheries or to fish that support those fisheries. At the beginning of the act, you'll notice that "serious harm" is defined as "the death of fish or any permanent alteration to, or destruction of, fish habitat". That's the direction we're going.

The minister and others have said that the act basically describes a new strategic direction and the foundation for it. The policy framework needs to be built upon that. He specifically said that those discussions will be taking place with the provinces, conservation groups, and other stakeholders. But he specifically mentioned provinces, so you can be sure that you will be involved as we build that framework on top of that foundation.

I hope that's a little bit helpful.

One of my colleagues, who couldn't be with us here today, was a conservation officer in the Yukon. He talked about enforcing WAPPRIITA when he was doing his job. That's the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act. It forbids a number of things, including the import, export, and interprovincial transportation of certain species. One of them is species whose introduction into Canadian ecosystems could endanger Canadian species.

Is the Province of Ontario involved in the enforcement of this act? This is federal legislation. Do they have an MOU, as many provinces do? I didn't see Ontario on that list. I just wondered if you've used that tool or an MOU to enforce that tool as part of dealing with invasive species, for example.

• (1610)

Ms. Anne Neary: No, I'm not aware that we have. I don't think so.

Ms. Francine MacDonald: No, we have not used that tool. WAPPRIITA deals with endangered species and invasive species as two pieces. For the invasive species piece, they have the ability to list species they do not want imported into the country, but it's been little used. If I think of the species currently listed as invasive, they are raccoon dogs and mongooses. So it has not been used very much. I think those were the original species listed when WAPPRIITA came into effect in the late-1990s. We have not used that tool in the past or currently.

Mr. Randy Kamp: You have your own legislation that says that someone can't possess a live thing that you call an invasive species, which is a harmful non-native species. Currently, as I understand it from a previous witness, if those show up at the border, the CBSA calls you.

They can't stop them at the border, as such. Is that your understanding? But once something crosses the border, it's under Ontario legislation, and you deal with it.

Have you taken a look at the changes to the Fisheries Act that address that gap in federal legislation with respect to aquatic invasive species? I think you referred to them. Do you think this will be helpful now? They will forbid their importation, for example, and movement and the other things listed there. Do you think that will help in your task, as we do this together? It's obviously a partnership to control these species.

Ms. Ala Boyd: Yes, we certainly are very optimistic and positive about the aquatic invasive species regulatory proposal that DFO is contemplating under the Fisheries Act. We feel that it will provide the necessary tools to empower CBSA to stop those shipments from coming into Canada; it's a tool that they presently do not have. From what we know of the regulatory proposals, we think it will be a very good tool to help address that significant gap.

Mr. Randy Kamp: How much more time do I have? I have a couple minutes.

I think in your comments you said that in your opinion, the vector that has introduced the majority of aquatic invasive species is the well meaning Canadians who throw things in the river or the pond or —what you didn't actually say—who flush things down the toilet, or whatever they do.

Is that your view, or how much is it ballast water and things coming in through transportation vectors rather than exotic animals somehow making their way into a Canadian's possession and then they get rid of them in an uninformed way?

• (1615)

Ms. Anne Neary: I think it's both. I will maybe turn to Tim who can probably provide a nice scientific answer to that question.

Dr. Tim Johnson (Research Scientist, Applied Research and Development Branch, Aquatic Research, Ontario Ministry of Natural Resources): Thanks, Anne.

Basically, I think ballast water was historically a very significant source for invasive species, aquatic invasive species especially, and certainly foreign species that arrived. But I think, as Anne pointed out in her talk, subsequent to 2006, we haven't seen, or haven't detected, I should say, any new species that we attribute to that vector. However, the water garden, the aquarium, trade is an emerging and very real threat.

I think what we're going to see in the coming years is that ballast water is still very significant, and if in any way the legislation changed, I think that could be a prominent vector, but for the moment I think we're probably seeing a transition.

Mr. Randy Kamp: Education is important, as you were saying.

Dr. Tim Johnson: Education is very key.

Mr. Randy Kamp: Thank you, Chair.

Ms. Anne Neary: I wanted to thank you very much for your comments about consultation and dialogue. We do appreciate that, and we look forward to commenting on the legislation.

The Chair: Thank you.

Now we'll move to the five-minute round, and we'll start off with Mr. Donnelly.

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

Thank you to our witnesses for being in front of the committee today.

I just wanted to pick up on the comments about the changes to the Fisheries Act, specifically on habitat protection. There were a few comments made earlier that I was hoping to get some clarification on, firstly on consultation.

Could you mention how you were consulted on these changes and when you first learned of these?

Ms. Anne Neary: As I say, I'm not the right person to answer that, simply because I'm involved on the science side of things, so I'm going to see....

Francine, I know you've been working with our folks to provide comments to the Department of Fisheries and Oceans. Can you talk a little bit more about that?

Ms. Francine MacDonald: I can only speak to the consultation that we've received with respect to the aquatic invasive species components of the Fisheries Act.

Ontario, as well as the other provinces and territories, is part of the National Aquatic Invasive Species Committee, and that committee has been consulted by DFO to inform us of what they're planning in terms of aquatic invasive species regulations. They have provided us with opportunity for feedback and comment on those aquatic invasive species regulations, but I can't speak to the consultation with respect to the entire act.

Ms. Anne Neary: I don't know when we started to provide comments back. Was it in the last month?

Ms. Ala Boyd: On the aquatic invasive regulatory proposal, I think we were first made aware of the drafts back in December and January, but with respect to the fisheries, the fish habitat provisions, I can't really speak to exactly when we were notified.

Mr. Fin Donnelly: It seems a bit—

Ms. Ala Boyd: It's a bit inconsistent.

Mr. Fin Donnelly: —inconsistent and cloudy.

Ms. Anne Neary: It's inconsistent, but I will say that certainly, there were rumours. I think everybody knows that, and the province didn't want to react in the absence of actually seeing the actual wording. It's easy to jump to conclusions before you really understand what's being proposed. We were waiting until the federal government had actually got the draft document ready to be looked at.

Mr. Fin Donnelly: You haven't seen it since it's been tabled?

Ms. Anne Neary: I haven't personally, no, but I haven't been involved in that side of it. I'm not sure whether our policy director has seen a copy of the draft or been consulted.

• (1620)

Mr. Fin Donnelly: I'm wondering if there are any increased responsibilities that will be turned over to the province as a result of these changes. Obviously, you haven't seen the legislation and had time to review the changes, but can you speak to any possible concerns?

You've mentioned the aquatic invasive side, but there's also a habitat side. Even with the aquatic invasive side, there could be an increased amount of responsibility for the Ontario provincial government.

Certainly, there have been cuts to DFO that I would assume will make things more difficult for marine science or freshwater science. I'm wondering if there's going to be an increase in responsibility for your department, given your remarks about potential belt-tightening in the Ontario government.

Ms. Anne Neary: The fisheries enforcement and management in Canada, and certainly in Ontario, has always been a combined effort. We've always worked closely with the Department of Fisheries and Oceans. With our delegated authority, we're in constant contact on our invasive species strategic plan. We're talking to them; they're at the table. In our rapid response to Asian carp, DFO was at the exercise we conducted.

Because fisheries management is split between federal and provincial legislation, we've worked together closely. We're watching any changes that occur under the Fisheries Act very closely to see what they will mean for Ontario. Our premier has announced that we need to start reducing our deficit and that this will mean changes in the work we do. Our fear is that if we take on increased responsibility, we may not have the resources to carry it out. But however it lands, we're hoping to continue to work together.

Mr. Fin Donnelly: Thank you.

The Chair: Thank you very much, Mr. Donnelly.

Mr. Hayes.

Mr. Bryan Hayes (Sault Ste. Marie, CPC): Thank you, Mr. Chair.

I think you guys thought that you were here to discuss invasive species in the Great Lakes. It seems like this has been changed to the Fisheries Act. Let's understand, folks, that we're studying invasive species in the Great Lakes. This was a resolution that was put forward by Pat Davidson and me, being a member for Sault Ste. Marie, to discuss invasive species in the Great Lakes.

With that question in mind, there are 12 jurisdictions—eight states, two provinces, the Canadian federal government, and the U.S. federal government. We also have the Ontario Ministry of Natural Resources, and several intergovernmental forums, including the Great Lakes Commission, the Great Lakes Fishery Commission, and the International Joint Commission. My concern has to do with who's in charge of making sure that everybody is talking to everybody and feeding everybody the right information so that we're all current on exactly what's going on.

Ms. Anne Neary: There are many players, just as there are for any fisheries issues in the Great Lakes. We work closely with our American colleagues. We hope the tools they bring align with ours, and we're hoping that our provincial strategy will put arms around all of the different groups and involve everyone, so that we're moving forward together.

Invasive species is one of those things for which we don't have easily definable tools. There are some regulations in the federal government, and we have regulations in our Fish and Wildlife Conservation Act. But there's no set of embracing regulations with clear enforcement and groups that enforce them. So it's certainly a challenge.

Who's in charge? I'm not sure. We're the provincial lead, DFO is the federal lead, but I don't know who's taking charge of the whole Great Lakes ecosystem. I think we can't really say there's anyone in charge.

Ala, you can correct me if I'm wrong on that one.

• (1625)

Ms. Ala Boyd: You're not wrong, Anne. The invasive species strategic plan that the province worked on with the other sister ministries will establish our ministry as the lead ministry to coordinate efforts around invasive species management. In the absence, as Anne alluded to, of a single overriding, embracing and statutorily delegated responsibility, the invasive species strategic plan does establish our ministry as the lead ministry to take an overall coordination role.

Ms. Anne Neary: I think one other point to make—and maybe Tim can speak to this—is that we work closely with the Great Lakes Fishery Commission, and our scientists are very closely linked to both the federal scientists and the American scientists and the work they're doing. So from a scientific perspective, I think we're probably well coordinated.

Dr. Tim Johnson: Anne, I think that's an excellent point, really, and I'll say, maybe to the chagrin of my minister at times, that I probably work more closely with U.S. and federal colleagues on many of the research programs on the Great Lakes than I do with other people in the inland jurisdictions of the province. That's simply the complexity of fish knowing no boundaries. The issue of invasive species is a complex one, and it requires everybody to embrace it and work for a common solution.

As we look across agencies or jurisdictions, we've traditionally looked at DFO and the Canada Centre for Inland Waters in Burlington for expertise on lower trophic levels. So they're dealing with the invertebrates, whereas Ontario has maybe taken the lead on the fisheries side. We look to things like the Great Lakes Fishery Commission with regard to sea lamprey, which is certainly a cause they have shown tremendous leadership on. But there are also U.S. jurisdictions that may provide greater leadership on certain topics. We work closely together, and I don't think there's any one lead agency. Instead, we just make sure that we all stay in close communication and are aware of what each of us is doing.

Mr. Bryan Hayes: With regard to the Invasive Species Centre in Sault Ste. Marie, Anne, you'd mentioned that the provincial government put in \$15 million over five years. I seem to recall quite clearly that the federal government also contributed—about \$9 million, I'm thinking—towards infrastructure for that particular building.

Ms. Anne Neary: That's right. We've actually toured through the infrastructure and their upgraded quarantine lab for invasive pests, and it's a lovely centre. I think we're going to make good use of it. Certainly, when we began, we talked a lot with the Canadian Forest Service about forest pests but also about invasive terrestrial plants in forests and the work we could do up there.

We've taken advantage of putting in place a research chair for invasive terrestrial plants at Algoma University. Pedro Antunes is our lead for that as our research chair, and he'll be working with the Invasive Species Centre as well.

So we're working on aquatic invasives, but we're also doing a lot on the terrestrial front as well now.

Mr. Bryan Hayes: We had a chance to meet Dr. István Imre, who's doing some research on sea lamprey control as well.

The Chair: Thank you, Mr. Hayes. Your time is up.

Mr. Toone.

Mr. Philip Toone (Gaspésie—Îles-de-la-Madeleine, NDP): Thank you, Mr. Chair.

Again, thanks for coming. It's certainly interesting to hear what the Ministry of Natural Resources has to say. I'm actually curious as to why in French it's called Ministère des Richesses naturelles.

I'd like to get just a little bit more clarification. You were saying there's a difference in the definitions of non-native species and invasive species. I'm wondering if there is an impact if a species is determined to be one or the other? How is that determination made? Could you speak to that?

Ms. Anne Neary: It depends on what impact that species might have on our environment and our economy and on society. For hundreds of years there have been invasive species and things that have come into Canada and that haven't caused a problem, that haven't taken over ecosystems, that haven't disrupted the balance. But there are also species that do disrupt that balance, and there can be large consequences.

Maybe Tim would like to speak a little bit about the kinds of consequences that some of these things can have.

• (1630)

Dr. Tim Johnson: Certainly. Again, as Anne has pointed out, I don't really see it as a change in definition. It's simply a matter of clarity that when people think about something like a non-native species, if there was a moniker, people were thinking everything was harmful and then they were finding examples where they weren't. Judicious stocking of species to create fisheries, for instance, could be of benefit.

So looking at some of the harm that we see from things, there can be very direct harm, such as predation, feeding on another organism. There can be disease transmission and other things, and loss of

habitat. Zebra mussels and quagga mussels have fundamentally changed the way the Great Lakes ecosystem operates, having in essence hardened the bottom of the lake. They've intercepted the movement of material. That food ultimately feeds the rest of the food web, so when we look at the harm it can be things that are very observable and direct and immediate to the public and to other people, and there can be things with delayed responses. Some of these delayed responses have really required us to broaden our thinking about the invasive species and accept that the level of harm is not always something that is immediate and has a direct visible economic effect.

Mr. Philip Toone: That's an interesting point. We don't know right away, at the beginning of when a new species has entered into the Great Lakes system, if it's actually going to do harm. We might be able to guess from previous experience elsewhere, but we're not entirely sure what impact it will have in the Great Lakes ecosystem.

The only way to really know is through observation over time, and previous witnesses who have come to this committee have said that sometimes those changes can happen fairly rapidly, where entire species are almost wiped out in a 10-year period and the new invasive species has actually taken over. So I'm just curious about this. If we can't know ahead of time what's an invasive species and which ones are going to do harm, and if we get back to the changes that are being proposed by the Conservative government to actually remove the protection of fish habitat and that, as Mr. Kamp correctly pointed out, we're only going to be interested—according to the new Fisheries Act—in situations of serious harm to commercially important fish, or recreationally important fish, or aboriginal fisheries....

So whenever we're going to be speaking to fisheries that are actually going to be covered under the changes to the Fisheries Act, how do we know ahead of time? Do you have the resources to know today what's going to be an invasive species, and if the federal government isn't going to support you, how is the Ontario ministry going to be able to handle this, especially with the cutbacks that are going to occur?

Ms. Anne Neary: I think there are a couple of things to say. The first is that in some cases species that come in have very direct and very noticeable and very fast impacts. I'll speak to zebra mussels and the impact they have had in populating very quickly and then forming on the intake pipes for water treatment plants and nuclear power facilities. That happened very fast. It required a huge amount of money to chlorinate and remove those zebra mussels from the intake pipes. So that's a really direct effect, and we can look at other jurisdictions and the impact that some of these species have had in other areas of the world.

We also have what we call a risk assessment tool so that we can do a risk assessment and develop models based on how we know species will move in an ecosystem, how they will behave in an ecosystem. We can look to what we see in other parts of the world, and we can actually look at the potential for a species to cause harmful impacts. Tim can probably speak on a more scientific level about risk assessment, but it's a tool that we use in many things. We often don't have 100% certainty. Certainly when we're dealing with new pollutants, for example, we don't know the long-term impacts and, in many cases, when we speak of invasive species, we don't know with 100% certainty.

The Chair: Sorry, Mr. Toone, your time is up.

Thank you.

Mr. Moore.

Hon. Rob Moore (Fundy Royal, CPC): Thank you, Mr. Chair.

My colleague had mentioned the legislative gap that we're going to be closing in CBSA's ability to make seizures at the border. You mentioned in your presentation six shipments that were seized. What was in those shipments and how did the seizure process play out? Where were the ships heading? Were those six shipments the tip of the iceberg? Are you very effective at stopping those kinds of shipments?

• (1635)

Ms. Anne Neary: I believe all six shipments were Asian carp. I don't know where they were headed. It was Toronto, I would imagine.

We're as effective as we can be with the tools we have. Canada Border Services, as somebody mentioned earlier, doesn't actually do the enforcement. They notify us and we take it from there.

So are we missing some? Perhaps. Can we catch them all? I don't know. I think we're doing as good a job as we can.

Does somebody want to add to that?

Ms. Ala Boyd: It was interesting to note about the shipments that were coming across the border that most of the suppliers or people who trade in Asian carp are very well aware of the ban on live Asian carp that has been in place for numerous years. In this case the tanker was drained of water, but the fish were on ice and several of them did not die in the time it took for the tanker to cross the border and be held back for inspection. The fish can be easily resuscitated once water is added. That speaks to their being a biologically very hardy species. They are very tough to suppress.

We feel it is the tip of the iceberg. We received the tip from the Canada Border Services Agency. Our enforcement and conservation officers conducted the inspection and found that there were live Asian carp in the shipment. There weren't a lot of them, but there were a number of them there. Charges have been laid, but I don't know if we've taken it through to prosecution.

Francine, I know you were involved in some of the details.

Ms. Francine MacDonald: I think there are three cases that are still before the courts, and one that's still under investigation. Two charges have been successful, one with a fine of \$60,000, and the other with a fine of \$20,000.

Hon. Rob Moore: The Asian carp really seem to have been in the news of late. Are there past examples you can point to that are similar in nature where we had success in combatting an invasive species—something that was an issue, that was successfully combatted, and that is no longer an issue?

Dr. Tim Johnson: An example is sea lamprey. When you say “success” you're inferring that we were able to eradicate and remove it. Regrettably, that doesn't happen.

Most of these organisms are highly successful, so instead we are able to control them. Through an annual investment of about \$25 million there has been a lot of science on different control strategies. This has allowed lake trout, lake whitefish, and other species fisheries to recover. Within a decade of sea lamprey being detected in the Great Lakes, the fisheries collapsed totally, with reductions of 95%. We have now seen the return of fisheries and have actually declared rehabilitation—so it's a total success.

But rather than saying we successfully eradicated the invasive, we've successfully managed the invasive, but it came at a tremendous cost.

Hon. Rob Moore: You mentioned the role of citizens, anglers, hunters, and so on. In a situation like that with the Asian carp, what do you see as the role of citizens or anglers—or is there a role?

Ms. Anne Neary: Certainly there is a role in education and awareness. The role they play, combined with the scientific work we're doing to try to develop detection tools ahead of time, will help us respond much more quickly.

Do you want to speak specifically to the work we're doing with OFAH and other groups?

• (1640)

Ms. Ala Boyd: Yes, both Francine and I can speak to the partnership.

We've had a very successful partnership with the Ontario Federation of Anglers and Hunters. I appreciate that they, too, provided testimony here, and probably spoke to the partnership we've had in place with them for, I guess, this year it's 20 years that we are celebrating.

Our surveys show there has been an increased awareness among the angling and hunting community. It has, in fact, resulted in the changing of behavioural practices. Many anglers, as a result of the increased education, no longer dump bait buckets into lakes, because use of live bait is also another vector.

In spite of that partnership, there is much work that remains. We are concerned about certain practices among different communities. Some communities, for cultural reasons and ceremonial purposes, will release live fish into waterways. It takes an inordinate amount of effort to reach out to the different communities and address the practices they have, the views and beliefs they hold close. Our work is not going to be done, by any stretch, through an agreement with one stakeholder community. It really is broad societal awareness that we need to promote to change practices.

The Chair: Thank you very much. Thank you, Mr. Moore.

Mr. MacAulay.

Hon. Lawrence MacAulay (Cardigan, Lib.): Thank you very much, Mr. Chair.

First of all, I apologize for being late and missing your presentation, but we must bury the dead.

Education and programs are things that I think are very much needed.

I think it was Ms. Boyd who indicated that ceremonial practices take place. I'd like you to expand on that. I wonder how big a task it would be—and you would know better than I—to make these people realize what harm they're actually doing. It's one of the many problems.

I forget which group it was, but we had a group here that had an educational package that would cost a little over \$1 million. I'd like you to elaborate on what we need. People need to understand that they are creating a great difficulty. You're dealing with a \$650-million benefit to the Ontario economy, and I doubt that many people would want to destroy that. What do we need to do in order to educate the people? Is that one of your biggest problems?

Also, if you have some time, on the ballast water issue, you've indicated that you have detected no new invasive species since the new regulations were put in place. I understand that the Americans are considering making a much stronger law, putting more technology into the ballast system in order to make sure there will be nothing alive coming into their waters. I'd like you to expand on that.

Thank you for being here.

Ms. Anne Neary: Maybe I'll introduce something, and then I'll turn it over to the others.

Certainly, anything we can do to strengthen our ballast regulations and make sure that we're not going to get any new invasives through that vector would be helpful.

We've had great success. As Tim pointed out, we're in a situation now where that isn't the primary vector, and things are starting to shift. As things start to shift and we start to look at bait fish, we start to look at water garden industries and things. We start to look at an increasingly urban population that is, perhaps, not as in touch with the native flora and fauna of Ontario, and certainly a population that comes from many other countries and really has no awareness of the impact they may cause.

Even if they were aware that it causes an impact, how do we make them care? How do we make them support our actions and take more care? If you don't live beside a lake, perhaps you don't view a lake as important. You may live many orders of magnitude away from the lake itself but still within the watershed. What you do in a small stream in the upper reaches of the watershed can certainly impact what happens downstream and at the output of the stream and into the lake.

It's creating that awareness. It's certainly a difficult problem. Can we do it effectively? We believe the only way to do it is by engaging others, such as municipalities and other organizations, such key environmental groups, and the people who are closer to those communities and can reach out.

Ala, and Tim, do you have something to add?

• (1645)

Hon. Lawrence MacAulay: If I may, before you pass it on to them, what would be your recommendation to the committee on the ballast water? There are going to be decisions. We'll not make the decisions, but we'll be making suggestions to the minister as to what direction he should take. Is it your view, then, that the ballast water situation is in hand?

Ms. Anne Neary: Certainly it has improved considerably—

Hon. Lawrence MacAulay: But you can't spend a large amount of money. What I'm trying to say is that there's not enough money to go everywhere, so where should we go? Is it education? Where is it?

Ms. Anne Neary: Tim, do you want to speak from a scientific perspective as to what you see our biggest problem might be?

Dr. Tim Johnson: Yes.

Again, I think it's a very good question. As Anne pointed out, I think we've made tremendous progress with ballast water, such that it's maybe not at the top of the list. I certainly would be very fearful if we backed off in any way or were seen to slide backwards, because when we look at the number of species that arrive through ballast water and at the time course, the threat is very real. There are thousands of ships crossing the ocean and entering the Great Lakes waterways, so we can't back off on this.

However, to get to your question about the education side of things, I think, as Anne has pointed out and just as this meeting is accomplishing, it's by educating and helping people understand the problems.... Whether it's working with the shipping industry—which we educated, and which has worked with us to develop measures—or with the public and individuals and communities, or with angling groups, yes, I think the area of education and outreach is probably a priority area for us to focus on. But it can't come about by compromising the efforts that we've put into some of these other measures.

If we were to turn our backs on sea lamprey control, in just a couple of years we would be back 50 years and dealing with the decimation of Great Lakes fish stocks. We can't take money out of that program to enhance another.

Hon. Lawrence MacAulay: Thank you very much.

Ms. Anne Neary: I think one point to add is that invasive species come from many different sources, so it isn't a one-point source for which you can easily write a regulation to control. With ballast water we can do that, but with all the other vectors we can't do that.

I think we're doing a very good job, given the lack of regulatory tools that we have in place. That's not a criticism implying that we should have more of them, necessarily, but we really need an effort that involves the legislation and the regulatory piece where we can use it; the education and awareness piece where that will benefit us most; a rapid response, making sure that everybody is on board and that the communication is there among all the agencies in order to take immediate action; and the science that will continue to tell us where we need to focus our efforts. I think we're doing as good a job as we can with what we've got.

The Chair: Thank you very much.

Monsieur Tremblay.

[Translation]

Mr. Jonathan Tremblay (Montmorency—Charlevoix—Haute-Côte-Nord, NDP): Thank you, Mr. Chair.

I have always been convinced scientific data help us take up any challenge. I think scientific data on fish habitat and spawning seasons and areas are essential in order to fight invading species. Data on the habitat tell us whether fish is weakened or still in good shape. Do you think changes in section 35 might entail the loss of effective data to fight invading species?

• (1650)

[English]

Ms. Anne Neary: I'm probably going to turn the floor over to Tim.

I'm not sure that we will be losing any data. We continue to collect data, and I think our research efforts will continue. That really helps us to define habitat and describe that habitat.

Tim, do you want to add a little to that?

Dr. Tim Johnson: Yes.

Without getting into detail, there's not much I can really add, other than to say that I think your point is very important. We need to understand the biology. On the question that came up earlier about predicting the next species, if we don't understand the basic biology, we can't undertake these basic biological and economic risk assessments, and then we can't assess the harm, which means we could be putting money into places where it could be better invested.

So yes, I think we need to do the basic science, and I think, as Anne has pointed out, we're not necessarily anticipating changes there. We do need to do basic collection to understand things, but it's hard to anticipate specifically with any one of these proposed changes what it may actually mean around that acquisition or collection of data.

[Translation]

Mr. Jonathan Tremblay: Thank you.

With budget cuts being made now, what should the federal government do? What are the changes that should be made in order to improve our fight against invading species?

[English]

Ms. Anne Neary: That's a difficult question. I'm not exactly sure what's being proposed in terms of budget restrictions. Certainly we're all rethinking what we need to do. We're all doing more with less. The provincial government is going through a similar process. I think we just have to make sure that we're ready to respond and that we focus perhaps on prevention and detection so that we aren't in a situation where we have to put a huge amount of resources towards enforcement and management after the fact.

I think we're hoping in the province that we can continue to do a lot of the research that we're doing to try to identify problems before they may happen, and build on our collaborative efforts around rapid response, certainly for Asian carp.

Ala, do you have some points that you'd like to make?

Ms. Ala Boyd: It's a great question.

We are very encouraged by the aquatic invasive regulatory proposal under the Fisheries Act. It will provide an enabling framework for the provinces to consider in terms of undertaking management action. It provides a very clear legal framework that will empower the provinces for the first time to legally control and eradicate species once they become established. So there are some very positive things happening in that regard.

We don't yet have a formal policy position, as a province, on any of the proposed changes under the Fisheries Act in terms of a comprehensive suite of changes that are taking place. We understand that the changes to the legislation are one component, but it will be really important for us to understand the policies and the strategies that derive out of the legislative changes in order for us to assess what the implication to the province might be.

We do see a continued role for the Department of Fisheries and Oceans in our inland waters. We feel that the Department of Fisheries and Oceans has a very clear role to play in coordinating and conducting some of the research monitoring activities. We rely very much on the Department of Fisheries and Oceans centre for expertise and risk assessments in Burlington. We are a very small organization in and of ourselves, and we cannot do the kind of work that the Department of Fisheries and Oceans does in that regard.

With respect to other federal government activities, if you're asking about the types of things that we would like to see the federal government continue to focus on, clearly we would ask that you maintain vigilance with the ballast water regulations and their implementation. Again, that's just not something our ministry would have the capacity or the resources to take on in the event that there were significant changes proposed.

We are very encouraged by some of the things that are happening. We clearly need more information about some of the other legislative changes that are proposed to understand the implications to Ontario.

Again, just in summary, we would ask that you maintain vigilance with the implementation of the ballast water regulations and some of the work you've done, particularly around the sea lamprey control program, which has been tremendously successful.

• (1655)

Ms. Anne Neary: I think adopting a risk approach is critical. Certainly in times of constraint a risk framework, and a formal risk framework, is always necessary. The risk assessment work done by Fisheries and Oceans but also by the Canadian Food Inspection Agency with respect to the socio-economic impacts is critical.

We certainly would like to see those two pieces continue, because those will be the tools we use to predict the impacts of new invasive species.

The Chair: Thank you very much.

Mr. Kamp.

Mr. Randy Kamp: Thank you, Mr. Chair.

I think my colleague, Mr. Toone, raised a good point about non-native species, that some are good and some are bad, as it turns out. It's my understanding, for example, that rainbow trout is not native to the Great Lakes, but it was introduced and I think we're pleased about that. We wouldn't be so pleased if we'd introduced something that turned out to be harmful.

I'm not a scientist, but I would guess that when you introduce something—a non-native species—even something as apparently benign as rainbow trout, that you won't know all of the effects on the ecosystem until it's been there a while. I think it's also true, as the saying goes, that one man's trash is another man's treasure. As we heard from an earlier witness, sea lamprey, for example, we hate in the Great Lakes, but in Portugal it's a delicacy, and an important economic fishery for other parts of the Atlantic as well. Yet it's causing nothing but harm in the Great Lakes. Obviously, it's a very difficult task, because some things are introduced and other things make their way naturally, and others through human sources.

My understanding is that a species of eel called the American eel is being considered for listing both in Canada and the U.S., and I think perhaps is already listed under provincial legislation in Ontario. I think it's declining in Lake Ontario, if I understand correctly.

Would it be affected at all by the sea lamprey control program? Would we be trying to kill sea lampreys and at the same time having negative effects on other species like the American eel, for example?

Ms. Anne Neary: I'm going to turn to my scientist to answer that, because I'm sure he can do it much better than I.

Dr. Tim Johnson: Again, just to help you understand, yes, the American eel is listed provincially, but federally its status is still being clarified. The United States is again torn, because in eastern Lake Ontario, in the St. Lawrence River, the American eel population used to support a very significant fishery but the species has literally disappeared from that portion of its range. We find very few individuals, whereas further out on the Atlantic seaboard, off the southern U.S. states, it's still surviving.

It's difficult, as Anne said earlier, with species coming in from multiple sources. When we look at a species and struggle with how to manage it, I think it's also important to recognize that the American eel and the lamprey are fundamentally different organisms. They may share some sort of a common moniker or name, but the American eel was never parasitic. It is a predator, but the lamprey was non-native and wrought tremendous harm to the lakes.

Mr. Randy Kamp: Do we have any reason to think that a program like the sea lamprey control program that kills sea lamprey could also negatively impact something like the American eel? I realize it's not the same species.

Dr. Tim Johnson: Careful control is done in evaluating the treatment options for things such as the sea lamprey program. Right now, they're moving away from chemical treatments. In the past they relied on using a chemical called TFM, which was a piscicide: it killed things. Now they're moving toward things such as a sterile male program and pheromones, which are natural body odours, to attract lamprey. They only attract lamprey and nothing else.

Moving to these new strategies should have much less effect on non-target species. But, certainly, any of these managed control programs have been very careful to try to ensure there wouldn't be an impact.

• (1700)

Mr. Randy Kamp: Thank you. That's all for me.

The Chair: Mrs. Davidson.

Mrs. Patricia Davidson: Thank you very much, Mr. Chair.

Again, thank you very much for your testimony here this afternoon.

We've talked a fair amount today and on previous days about sea lamprey control. We've talked about ballast water. We've talked about the live transport across provincial boundaries and CBSA's actions. We've talked about education. It seems the two species that are at the top of everybody's awareness level are the northern snakehead and the Asian carp.

How do you monitor the Great Lakes systems for either of those species, and who does it? Who's responsible for it? Do you monitor for other things as well? Are there jurisdictional boundaries and jurisdictional issues when it comes to monitoring of the Great Lakes or is there a monitoring system for things that we know could be coming?

Ms. Anne Neary: Certainly we're watching out and monitoring for Asian carp. Whether we will detect the first Asian carp that appears, it's unlikely.

Our scientists have been working on a method that will actually use environmental DNA to test the water to see if there is evidence of Asian carp.

Tim, do you want to speak a little bit about the work you're doing to look at DNA monitoring?

Mrs. Patricia Davidson: So is it your ministry that's responsible for doing it? Is it?

Okay.

Dr. Tim Johnson: In evaluating and monitoring, again, I'll bring this back. It's very coordinated. It requires everyone to be involved because we can't be everywhere all the time. We're always looking for new technologies, things such as this environmental DNA where we can go out and sample the environment rather than requiring us to physically capture the organisms.

We look at the scale of the Great Lakes, the volume of water, and the amount of physical habitat. As for whether Ontario or Michigan or the U.S. Army Corps of Engineers is somehow going to be able to state unequivocally that the species is not in the system, I don't think any one agency can bear that responsibility.

Again, we work to understand where we're all at. We apply emerging technologies. We have coordinated workshops where Ontario ran a rapid response workshop on Asian carp and brought in jurisdictions that involve U.S. as well as federal partners to understand what we can do.

Again, I think that's really the best we can do, to work together and to keep our eyes open. The education/outreach side is key just to help people understand the seriousness of the threat.

Ms. Anne Neary: Certainly we look at the highest risk areas first.

Right now, we're focusing of course on the Chicago Sanitary and Ship Canal because that is the most likely vector.

Again, the Great Lakes is a huge area to cover, so we have to focus on the highest risk.

Mrs. Patricia Davidson: I'm referring now to the report that was done by the Great Lakes Commission and the Great Lakes and St. Lawrence cities initiative, *Restoring the Natural Divide*. Do you think that we need to have a physical barrier, or are there are other ways to stop the Asian carp from coming through?

Ms. Anne Neary: They have electric fences now. There are a number of methods they're using.

As for whether or not that will be effective in the long run, does somebody have more information?

• (1705)

Ms. Francine MacDonald: The report that was done by the Great Lakes cities initiative is a wonderful report. It does outline three potential strategies for physical separation of the canal and has outlined the economic costs of implementing those options, ranging from between \$3 billion to \$9 billion.

These are strategies that come with a very significant cost. We have that report, but we also have a report that's being completed by the U.S. Army Corps of Engineers that's also identifying potential control strategies. We hope that report will be completed very soon. It's called the Great Lakes and Mississippi River Interbasin Study. That's supposed to come out soon too.

With those two reports, we can evaluate which strategies are the best approach for dealing with this.

What we've learned from the Great Lake cities report is that we're not just dealing with Asian carp. We're dealing with communities that live on the Chicago waterway system. The city of Chicago depends on that system for flood control and infrastructure and it involves transportation, so it has huge value. There is definitely a weighing and a balancing of impacts. Certainly we would like to see something more in the future than just the electric dispersal barriers currently in place.

Ms. Anne Neary: Although we recognize that it's a high risk area, reversing the flow, as you mentioned, certainly comes with a large cost. Maybe the Asian carp have come from a truckload of carp across the border that hasn't been caught and has flipped over and released fish into a stream. We could spend billions of dollars and still not solve the problem. We really have to think carefully about where our money is best invested.

The Chair: Thank you, Ms. Davidson.

On behalf of the committee I want to thank you very much for taking the time today to meet with us and to make your presentations, and for taking the time to answer our questions. It was very much appreciated.

Committee, we have one item under committee business. We'll take a few moments to excuse our witnesses and then we'll proceed with that.

• (1705)

(Pause)

• (1710)

The Chair: We will resume.

You all have a copy of a budget that was circulated. This budget is for the study that we're in the process of undertaking. Obviously, it's to cover the travel expenses of our witnesses as they come to meet with our committee, and the committee's own expenses for a number of witnesses, including video conferencing. This is the upper limit, obviously. It's hard to guess the exact expenses until they're incurred and submitted, but the clerk estimates the expenses based on the witness lists you have submitted and where the witnesses come from.

If you go down through the list of witness' expenses you'll see indicated, "city unspecified". The clerk simply hasn't listed all the cities, municipalities, or individual areas they've come from. He has listed them under "city unspecified". The major centres are listed there as well.

Basically, this is the budget we propose for the study that we're in the midst of at this point in time. Are there any questions on the budget?

Mr. Robert Chisholm: Are these witnesses who have already been heard?

The Chair: Some have been. We undertook this study as per the motion brought before the committee. As you know, we've been accepting witnesses from all sides of the committee and it's pretty hard to come up with a budget until we have all the witnesses in so we know where they're coming from.

Mr. Robert Chisholm: I'm curious as to how much further this will go.

The Chair: Unless the committee comes up with some more witnesses, I'm assuming that we have the complete list now. It has been open to all committee members to submit witnesses for the past few weeks. Since we've been hearing from members, I'm assuming that we have all the witness names submitted by now. Unless somebody is holding back some surprises for me here, I assume this list should be complete.

Mr. Robert Chisholm: Is this the first budget we've done for this study? Didn't we table a draft budget?

The Chair: No.

Is there anything further?

Mr. Kamp.

Mr. Randy Kamp: I don't have any problem with this.

Based on that list that we now think is complete, do we have any estimate of how many more meeting days it will take to hear those witnesses?

The Chair: I'll let the clerk explain that.

Go ahead, Georges.

The Clerk of the Committee (Mr. Georges Etoka): I haven't counted the days yet because we still have to deal with the report coming in on aquaculture, so it depends on how many meetings the committee will spend on that report. I can then figure out how many more sittings we'll have on this study.

Mr. Randy Kamp: If there were no report interrupting this, how many days would it be until we finish the witnesses? Do you have an estimate?

The Chair: Basically, what the clerk is probably saying here is that a lot of it depends on the scheduling of our witnesses, on their availability. When we try to schedule witnesses, sometimes we try to group them together if they're able to come, but I'll give you a tally here in a second as I go through it.

Mr. Robert Chisholm: At least how many witnesses do we have on the list?

The Chair: I believe they all have a copy of the witness list, don't they?

The Clerk: I see a five-day schedule for witnesses, that is, five sitting days.

Mr. Randy Kamp: Where I was going, I guess, is that I sense there's an appetite for us to wrap this up before we rise in June so that when we come back in September we will be doing something else. I'm wondering whether that seems possible. I hope so.

The Chair: I believe so and that's basically what we're aiming for at this point.

Mr. Donnelly.

Mr. Fin Donnelly: Mr. Chair, based on that, I'm assuming that we're coming back to deal with the aquaculture report and that it will take a number of days. I think it was the 19th we were talking about.

● (1715)

The Chair: I'll let Kristen explain that.

Mr. Fin Donnelly: That's as early as it can come back.

Ms. Kristen Courtney (Committee Researcher): I have an update on that.

You were originally supposed to get the report on Wednesday. I was a little late getting some things to translation, so it will be Thursday or Friday of this week.

The Chair: Are there any further questions on the budget that you have in front of you?

Our clerk has provided a sample motion to you as well.

Could I have a mover for the adoption of the budget?

Ms. Patricia Davidson: I so move.

The Chair: On the motion moved by Ms. Davidson that the proposed budget in the amount of \$33,100 for the committee's study on invasive species that pose a threat to the Great Lakes system be adopted, all those in favour please signify.

(Motion agreed to)

The Chair: There being no further business, this committee stands adjourned.

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