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Chair

Mr. Gerald Keddy

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•(1105)

[English]

The Chair (Mr. Gerald Keddy (South Shore—St. Margaret's, CPC)): I call the meeting to order. The orders of the day are, pursuant to Standing Order 108(2), a study on the Department of Fisheries and Oceans science renewal initiative.

Welcome to our witnesses, Monsieur Paradis, Ms. McClung, Ms. Watson-Wright, Mr. Labonté, and Ms. Narayanan.

Welcome, and certainly welcome to our members.

Ms. McClung.

Ms. Lucie McClung (Senior Associate Deputy Minister, Department of Fisheries and Oceans): Thank you very much, and good morning, Mr. Chair and members.

Thank you for the opportunity to be here today to discuss more in-depth efforts in science at the department. I'm accompanied by many people, but let me introduce them before I turn it over to Dr. Wendy Watson-Wright, who is the assistant deputy minister responsible for science. With me is Monsieur Serge Labonté, director general, who is leading the science renewal that you have targeted for your attention this morning; Dr. Sylvain Paradis, director general, ecosystem science directorate; and Dr. Savi Narayanan, who is responsible for ocean science and the Canadian Hydrographic Service.

You've been provided with the presentation, so I will not take up too much of your time. We have an hour. I will ask Dr. Wendy Watson-Wright to go through the presentation to set the context for your questions.

Thank you.

Dr. Wendy Watson-Wright (Assistant Deputy Minister, Science, Department of Fisheries and Oceans): *Merçi beaucoup*, Lucie.

Bonjour, tout le monde. Thank you for asking us to be here.

I will go through the deck as quickly as I can, and we'll be happy to answer questions afterward.

On the presentation, beginning with slide 2, I would just like to give some context as to where we were when we started to undertake the science review.

This began in 2004, and it was initiated to assess the science programs and activities in light of the new departmental strategic objectives and high priorities, and to look at what were some

possible changes that we might make to the science program to better support DFO and the federal government policy.

The review helped us to identify key challenges or areas where we might indeed make improvements, and those included that we had a lack of a well-defined priority-setting process; in some cases we felt program delivery was not as efficient as it might have been; there is definitely a need to regenerate the workforce due to retirements and pending attrition; and also, at the time, there were funding pressures with an expanding departmental mandate and emerging priorities. I think the key message here is that the mandate was expanding but the resources were not rising in conjunction with the expanding mandate.

On slide 3 you will see the objective for the DFO science renewal, and this really is that we will have a vibrant aquatic science program based on excellence, as always, that supports and informs DFO on government needs and best serves Canadians.

You will see on slide 4 what we're calling our DFO science framework for the future. As you can see, that framework is comprised of or based on four pillars or guiding principles, and those are: relevance, effectiveness, affordability, and value. I will elaborate on each of those a little more in the coming slides.

On slide 5, in terms of relevance, you may recognize this, basically, as the DFO science program activity architecture. I have to say it was a fairly major undertaking to go from the three business lines, which committee members may remember, those being fisheries and oceans science, environmental science, and hydrography, as well as a project inventory of around 1,250 projects, to this structure, which now has 11 clusters of activities, but we hope and we feel that this is more reflective of what we do, it's easier to explain, and it should be easier for you to see where we are.

At the top, you can see the three strategic objectives for the department. We've discussed those previously at committee. Underneath, you will see three science themes that cut across the strategic objectives, and then, as I mentioned, there are 11 issue areas that really reflect the program activity architecture.

I have to say that the themes and each of the activities are not easily lined up under any one strategic objective because, as you may understand, all the science that we do contributes in varying proportions to the various strategic outcomes, depending upon how the information is used.

To the left, in the oval, you will see there are science functions mentioned. There are five, those being research, monitoring, advisory processes, products and services, and data management. I'll speak a little bit to those, but, essentially, that's a different cut at how we do science; those are the components that we undertake in order to come up with the information for decision-makers.

On slide 6, and still under the pillar of relevance, fundamental to the renewal is the establishment of what we call the Science Management Board. The Science Management Board is chaired by the deputy. It is there to provide for a structured, formalized, and strategic process for priority-setting for science within the department. This is the first time this has happened within the department and this is the only department that has a structure of this nature or a process of this nature for formalized priority-setting for science.

The members are responsible for discussing the priorities needing science support. I will say that the membership includes the deputy, as I mentioned, myself, the two most relevant client sectors, those being oceans and habitat management and fisheries and aquaculture management, the chair of my external science advisory committee, Dr. Arthur Colin, and two of our senior scientists within the department. There are also two regional directors general, one east and one west, who represent all the regions.

• (1110)

We've met three times with this committee, and at the most recent meeting the board reviewed in detail our draft five-year research plan. We always have very good discussions, and we would be pleased to speak more to this.

If we move to the next slide, you will see that in terms of effectiveness, as we've mentioned previously at this committee, we are moving to an ecosystem approach. At our first Science Management Board meeting there was unanimous agreement that we do need to move in this direction. If I could just say for a moment, coming back to the context, in the past some of you may know our major client, our only client, was fisheries management, but we now have more. We have aquaculture, we have oceans, and we have habitat. Trying to square all those competing demands is why we put the management board together. We'd be pleased to discuss more what ecosystem science entails, but I will move on at this moment.

On slide 8...I mentioned the science functions earlier, and in fact during the review period we had a very intensive look at each and every one of our science functions. On monitoring, we put together an extensive report on what we do across the country. The monitoring, really, is the data collection, and a very large part of our data collection is done from vessels. We've talked about science vessels here before. That report is available and we'd be happy to provide it to you. We are now putting together an operational plan for the Atlantic, the Pacific, the Arctic, for freshwater, and Pacific salmon.

Data management is essential. We need to be able to access data; we need to be able to organize data. With pending retirements, we need to make sure we know where it is and that people can get to it.

Products and services are really related mostly to the Canadian Hydrographic Service, their charts, tide tables, and whatnot. Again, we can speak to that.

On research, I mentioned that we have a draft research plan, which ultimately we'd be happy to share with this committee.

All of this goes into the scientific advice, and we have a very extensive advisory process. You can access on our website all of our advisory processes for the coming year, which would relate to stock assessment, habitat assessment, state of the oceans, and whatnot.

Slide 9 is on effectiveness. We're looking at modernizing delivery. For one thing, we have always partnered, but we understand that we need to do more partnering, more effective partnering, so we have worked on a partnering and collaboration strategy. In conjunction with other science-based departments and agencies, there is also quite a lot of work going on in that area.

In addition to that, we have effected a different mechanism of delivery of our science. We have put in place a number of centres of expertise, which I'll speak to on the next slide. This is slide 10. Essentially there are two types of what we call COEs. One type is geographic; we have a couple of those, where all the scientists are in the same location. We're focusing more on the virtual centres of expertise, where we have a leader in one region, but we connect. It's more like a network of researchers.

Four of the COEs have been operational for a few years now, and I think you've heard of some of them. For example, there's COOGER, the Centre for Offshore Oil and Gas Environmental Research, but there are others listed there. We have others in development, such as the Centre for research on Hydropower Impact on Fish and their habitat, CHIF, and the Centre of Expertise for Aquatic Risk Assessment, CEARA, which really relates to aquatic invasive species, and others.

Also, on effectiveness—I'm moving to slide 11—there's the highly skilled workforce. This committee has certainly indicated that you understand the challenges we're facing in the future. We are just coming to completion on a science HR strategy and plan. It will focus on strategic recruitment and retention, on fostering continuous learning and mentoring, and on strengthening our scientific and management capacity, as well as addressing any employment equity gaps. We also recognize that we need to further develop a culture that fosters the whole notion of collaboration, of multidisciplinary or interdisciplinary work, and also working with a spectrum of partners.

Moving to affordability on slide 12, this is really what was driving the department, as you know, and science as well.

•(1115)

The renewal of the science program is supported by key strategies that are being integrated into a formalized process. We have an integrated financial and human resources strategy. For the at-sea science strategy, we are working closely with the coast guard to ensure that we can afford the vessels and get the work done that we need to do. On equipment strategy and infrastructure, I will just mention that as being addressed in an initiative led by Treasury Board, looking at the notion of where will the Government of Canada reinvest in federal science laboratories.

Also on affordability, I would note that in the recent past, in 2006-07, we actually have had an injection of funds. The transformational plan, which you've heard of, did result in \$15.5 million coming into science overall. Of that, \$2 million was major capital, \$4 million went to vessels, and \$9.5 million has gone directly into science for ecosystem research, monitoring, and high-risk charting.

The minister has given us direction this year, as you have heard, to maintain investment in stock assessment of \$6 million that was scheduled to be cut under the expenditure review decisions. As well, he has directed us to retain the vessel, the *Wilfred Templeman*, in service until a new vessel arrives in 2011, and that would account for another \$3 million.

We have remaining before us a financial challenge in terms of the Larocque court decision, which we can discuss a bit later, but essentially that was a decision that the minister cannot allocate fish that would then be used to finance science activities within the department.

And finally, under value, the science that we do, we recognize that most people don't know what we do. And in fact one of my science advisory committee members said to me, after touring one of our facilities, you know, these are the best stories never told and you need to get the story out.

We have been working hard on that. We are working on a strategy, but in advance of the strategy, we have done a number of things. We will have a first ever annual report of DFO science, which is in press, which we will be happy to share with members as soon as we can get it off the press. We have feature articles on the website. New ones come out every two weeks, and if you wish to be on the list, we would be happy to include you in that list. We also have an ADM lecture series here in Ottawa. And, again, if you wish to be on the list for those, you can be. In fact, tomorrow at 1:30 there is one on cod, "Cod Recovery: Food for Thought", by Jean-Denis Dutil of our Quebec region.

Finally, under value, we also have an integrated risk and performance management framework. We need to be able to measure what we do, to demonstrate what we do, and why it is of importance to decision-makers and Canadians.

Essentially, Mr. Chair, I will close there. I think the last slide speaks for itself. I think the science renewal is on the right path, but we are certainly open to suggestions from this committee as to how we can improve and do more.

Thank you. *Merci beaucoup.*

•(1120)

The Chair: Thank you very much for your presentation. I'm sure we'll have some suggestions. We have normally a shy and reclusive crowd here, but they may be able to come out of their shell to be forthright.

Mr. Byrne.

Hon. Gerry Byrne (Humber—St. Barbe—Baie Verte, Lib.): Thank you, Mr. Chair.

Thank you very much for the very thoughtful presentation. There was a lot of good information there to digest.

From the point of view of members sitting at this table and the constituents we serve, one of the greatest points of concern that we encounter with our constituents and your stakeholders is consistent, responsible information that fishermen can take with confidence.

I'd like to give you two fisheries management examples where confidence has been somewhat shaken in the department's ability to actually effect good scientific analysis to assist managers.

Situation number one is cod in the Gulf of St. Lawrence. Many of us remember in 2003 there was a decision that was taken to put cod in the northern gulf and southern gulf into a moratorium. That was based on scientific information that was coming out at the time. It caused a lot of political, economic, and social upheaval. It cost the local economy of the region approximately \$22 million in direct spending and probably more in indirect spending. On that advice from science, the fishery was shut down. We now know, of course, that the advice was probably somewhat suspect in the sense that the fishery was open the following year, and just about every year since we've had increases in quota, therefore causing a certain amount of concern on the part of fishermen as to whether or not the original decision to place a moratorium on the fishery was a valid one.

The second circumstance would be shrimp in the Gulf of St. Lawrence in area 4, in the estuary region. There was a decision to cut gulf shrimp by 27%. Other stocks had been increasing. It was based on scientific evidence. Even though adjacent stocks were deemed by DFO at the Maurice Lamontagne Institute to be healthy, the northern gulf shrimp stock was viewed to be in jeopardy. There was an original recommendation to cut it by 27%. That was eventually cut to 20%, and now we have almost a full reinstatement of that particular quota.

The point I'm getting at is that fishermen need to have confidence that when DFO is acting using the precautionary principle, every possible element, every resource, is put to task to provide good stock assessments and to provide recommendations to managers as to exactly what TACs and quotas should be.

In your review, has that been front and centre in the decision-making process, because in those two fisheries alone—and I could cite more—I've just described to you economic costs in the tens of millions of dollars that most would agree in hindsight were deemed to be unnecessary?

Dr. Wendy Watson-Wright: I will take a stab at that, and then I'll ask Monsieur Labonté to continue.

First of all, thank you for that. We do recognize that fishermen and scientists do need to understand each other and we need to work closely together. We are trying to do that better and will continue to do so.

The advisory process within the department is not limited to the department, as you may know. We bring together all the experts we can find on a given stock. In terms of northern gulf cod, for example, we have had extensive advisory processes including not just DFO scientists, not just the scientists who work on a given stock, but all those who have input. We bring in industry and academics and put together a very rigorous peer review process for any of these things. We do our best to provide the best scientific advice we possibly can.

There are always those who will disagree with the recommendations or with decisions that come out subsequent to the science input on both sides, but my feeling is that we do, and continue to, provide the most expert advice that we possibly can.

On the shrimp issue, I am less familiar with that so I'll ask Monsieur Labonté to speak to it.

My main message is that I agree with you. We do need to provide the very best scientific information that we can. We take that responsibility very seriously. Not all will agree with everything, but it is a peer review process, and at the end of the day, everybody who participates is part of that advice, which is then taken in conjunction with socio-economic information.

Serge.

• (1125)

Mr. Serge Labonté (Senior Director General, Department of Fisheries and Oceans): The only point I would have to add is that I think our scientists are trying to work as closely as possible with the fishermen, in terms of doing the surveys and exchanging over the course of the year, to make sure they have all the information. As Dr. Watson-Wright mentioned, as you go to the peer review, you have to provide the best possible advice you have with the information you have that you can interpret. At the end of the day, science supports the decision-making process. The decision is not just made on science, but the best advice is used in terms of making decisions. There is always variability in the information that is provided, and it's why it's reviewed in the largest possible forum.

Hon. Gerry Byrne: Monsieur Labonté, there is a common thread and characteristic between both of the examples I gave. In the years in question, the *Teleost*, was performing the outer trawl surveys to actually do the stock assessments, and it's in the DFO scientific documents that those trawl surveys were inadequate in being able to provide effective baseline data as to exactly what the stock assessments were.

There was gear fouling. There were a limited number of tows. The vessel was incapacitated; it was at port for most of the summer. But despite all of that, despite the fact that the vessel was basically not performing within what would normally be considered to be normal parameters, DFO went forward and made recommendations, and it was based on, in fairness, a precautionary principle. But I think that's where the disconnect is created here. Despite the fact that there were concerns or issues within the Department of Fisheries and Oceans science branch, and those who were conducting these surveys, that

never really got brought to the full attention of decision-makers and stakeholders. This is a major concern that I think each and every one of us has, especially when that kind of circumstance is brought to full light.

Mr. Serge Labonté: In all fairness, Mr. Byrne, in the way the assessment of cod was done at the time.... The survey that is carried out by the department is only one of the indices that is used in doing the survey. We have many other indices that are used. There is the sentinel fishery survey, for instance, the mobile gear and the fixed gear, and there is ongoing discussion on the state of the fishery. To my recollection, the indices—and I can see the assessment in front of me—show that the index from the sentinel survey was parallel with the index of the research vessel survey of the department. They have been in parallel for a number of years.

So I don't think there were major discrepancies in terms of the various indices. I agree that the large-vessel survey we have cannot go inshore up to the bay, and things like that, but this is why there are the other kinds of indices in order to look at the resource.

So I don't think the department was careless in terms of looking at all the information available in terms of providing the advice. But the state of the stock has been very low in terms of what it has been in the past, probably 10% of the spawning biomass as compared to the mid-eighties. In that sense, the stock was at a low state. So the issue here is rebuilding the stock versus keeping the stock where they are. The advice took that into consideration, to the best of my knowledge.

• (1130)

The Chair: You have 46 seconds.

Mr. Bill Matthews (Random—Burin—St. George's, Lib.): I'll ask a very quick question to ADM Watson-Wright.

In a response to Mr. Byrne, Ms. Watson-Wright, you mentioned northern cod and peer review. There is a peer review process. What would be the peer review process on northern cod? What information would there be, and where does it come from for there to be a peer review? My understanding is that there is very little research done on northern cod. So I'd like to know what kind of a peer review there would be on that.

Dr. Wendy Watson-Wright: If I didn't say northern gulf cod, I should have. That's what I was referring to.

Mr. Bill Matthews: So you're talking about the same problem Mr. Byrne was on.

Dr. Wendy Watson-Wright: Yes, I was. Sorry.

Mr. Bill Matthews: Okay.

I guess my time is up.

The Chair: It is, as a matter of fact. We'll come back to you.

[Translation]

Mr. Blais.

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

Ladies and gentlemen, I'm going to begin by asking you an easy question, and then a very hard one.

Here's the easy one: where are your centres of expertise?

Dr. Wendy Watson-Wright: They are located in a lot of different places. There are two or three at Mont-Joli, one in Moncton and two in Halifax, among others.

Mr. Raynald Blais: Are you talking about a concentration of scientists?

Dr. Wendy Watson-Wright: No. Most of the centres of expertise are virtual. The scientists are located in several locations, but there's a boss. It's like a network.

Mr. Raynald Blais: In other words, they may be located anywhere.

Dr. Wendy Watson-Wright: That's right.

Mr. Raynald Blais: Are there any here in Ottawa?

Dr. Wendy Watson-Wright: No. The purpose of the centres of expertise is to facilitate research. We don't do research in Ottawa. The researchers are in the regions.

Mr. Raynald Blais: Right. Now for the hard question, which concerns climate change. I read your document and I have read other presentations you've made. Furthermore, this isn't the first time we've met. I would really like, however, to know about your action plan on climate change, from a scientific perspective.

I understand, by my lights, that, on account of climate change, marine resources, on which a large number of our communities depend, are probably doomed. Actually we don't really know what lies ahead. I figure that, in such conditions, the only people I can trust are the soothsayers and the scientists. Anyone can predict the future, but not everyone is a scientist.

I'd like you to tell me about not just the general plans broached here, that is, the science, the work done by other federal departments, the universities and other countries, with a view to dealing with this global issue. To my mind, dealing with this issue is much more than that. I want to know what your approach has been to this file in recent years and what it will be in future.

Mme Wendy Watson-Wright: Serge or Savi, do you want to respond?

[*English*]

Ms. Savi Narayanan (Director General, Oceans Science and Canadian Hydrographic Service and Dominion Hydrographer, Department of Fisheries and Oceans): We are addressing this in many different ways. First of all, in order to address climate change, you need to have historical information and ongoing information. The monitoring plan we are developing will feed into that, but in the past we had a number of areas we have been monitoring, the variability in the ocean, in the atmosphere, etc.

Secondly, we are working with other departments like Environment Canada to develop integrated models for forecasting climate change, and we are also working with other countries. You have to remember that climate change is a global issue. Recently we were discussing with France to work with them to develop a global model to address the climate variability.

We are also working with the universities. You probably know there is the Canadian Foundation for Climate and Atmospheric Sciences, and we work very closely with that. In fact, Wendy Watson-Wright is a member of that board, and they have considerable funding as well.

It is a challenge to address that, and Fisheries and Oceans cannot do it alone, so we are working with Environment Canada, with the universities, and with other partners in other countries.

• (1135)

[*Translation*]

Mr. Raynald Blais: Excuse me for interrupting you. I'd like to hear you talk, not about the global aspect of the subject, but about how the Department of Fisheries and Oceans plans to deal with climate change, in terms of marine resources.

I understand the whole global aspect, but I'd like you to talk more specifically about the measures being taken by Fisheries and Oceans Canada to deal with this issue. It is global and environmental, for sure, but my main concern is the marine resources. I'd even go so far as to say that I am concerned specifically about the Gulf of St. Lawrence.

Mr. Serge Labonté: The climate change or climate variability aspect is an integral part of our research plan and strategy concerning the fish stocks.

I have to say that, in terms of resource management, we can position ourselves. This involves better understanding the impact these changes will have on our resources and how the resources will change in terms of distribution, abundance and species, so that we can provide advice in order to adapt to these changes.

Climate change will not end from one day to the next. The distribution of species is going to change. We have a major role to play in this regard. We are trying to integrate elements that enable us to make these predictions in our research and management strategy.

Mr. Raynald Blais: But what does all that mean in concrete terms?

Mr. Serge Labonté: As far as the salmon on the Pacific coast are concerned, for example, we are studying how environmental change is affecting the productivity of the stocks and how that is going to affect the comeback of the salmon in the future. We are taking account of environmental change in our attempts to make predictions, so that we can provide advice.

[*English*]

The Chair: Thank you, Mr. Blais.

[*Translation*]

Mr. Raynald Blais: Ms. McClung wanted to add something.

[*English*]

The Chair: Madame McClung, very quickly, please.

[*Translation*]

Ms. Lucie McClung: Thank you, Mr. Chair.

Apart from the scientific support for these questions, which is going to last for many years, we agree, other departmental strategies are being managed by other sectors. You are aware of the discussions in which several provinces and industry representatives are taking part at present concerning the future and viability of resources. The discussions are not specifically about climate change, but about the future of the fisheries. These discussions take the environment into consideration in a global fashion, and includes climate change and its effects. Also, the department wants to present an aquaculture viability strategy, which could be a viable, more natural, we might say, alternative for fishermen and the fishing sector.

There's all this work concerning the management plan for the oceans and large bodies of water that we'd like to continue in order to see how the integration of all the variables might affect the St. Lawrence River. In short, there are strategies designed to adjust resources.

[*English*]

The Chair: I'm going to have to cut you off there. We will have time in the next round of questions to further explore that subject, I'm certain.

Mr. Stoffer.

Mr. Peter Stoffer (Sackville—Eastern Shore, NDP): Thank you very much, Mr. Chairman. Thank you, ladies and gentlemen, for coming today.

I'm just going over the estimates here for science for 2008-09, and it shows a decrease from 2005-06 of almost \$23 million. I'm just wondering, with all the things that science is being asked to do—and you had indicated the pressures that science is under and all that you're being asked to do—how the department can justify a decrease in science. I know members of this committee and others who are out there in the world are asking for more human and financial resources to science.

• (1140)

Dr. Wendy Watson-Wright: Thank you very much.

The numbers aren't totally reflective, and there are some numbers in 2006-07 that may not be in 2005-06, and vice versa. My recollection is that for 2005-06 the vessel numbers were included, whereas for 2006-07 the vessel numbers were not included.

So in fact in 2006-07 it has been augmented as opposed to decreased. That's for the total.

I would also say that in terms of 2005-06, if you look at the breakdown among the various strategic objectives, it's a bit misleading because that was the first time we were starting to report this way, so we weren't able to pin down every single dollar. But that was, we feel, pretty close. Overall, it's an augmentation; it's not a decrease.

Mr. Peter Stoffer: I can appreciate 2005-06, but I'm looking directly at figures from your department for 2008 and 2009. The total for 2005-06 shows \$240.2 million. The total for 2008-09 shows \$217.4 million.

I may not be a mathematician, but that shows a decrease, and with your science framework for the future and all the pressures put

against science, how does the department justify the decrease over a two-year period?

Dr. Wendy Watson-Wright: Mr. Chair, I think some of these answers were given in some of the other meetings when the ADM of human resources and corporate services was here, meaning that some of the planned spending is based on a given point in time, whereas the actual spending as we approach may be different.

I've already mentioned the figures for vessels and the fact that their presence or absence makes a difference to the total. There are some sunset programs included in the numbers you are seeing, which would account for increases or decreases in a given year. And I will say also that although I referred earlier to ministerial direction to not decrease the stock assessment by \$6 million, in fact the numbers reflect that as coming out. So those adjustments haven't been made yet, and we're still trying to catch up with the other adjustments, plus any new initiatives that may be coming up in future.

The Chair: Ms. Watson-Wright, I believe Mr. Stoffer is quoting from the updated numbers from the last time ministerial personnel were here.

Dr. Wendy Watson-Wright: Yes, the revised spending.

Ms. Lucie McClung: And the roll-up is scheduled to be delivered to all members, I believe, early next week, just for the reconciliation, so that we're clear in the record.

Mr. Peter Stoffer: I have a couple of other questions. One is on the Larocque decision. Where is the department planning to find the funds that were previously there before? What is your opinion of the Larocque decision?

Also, Madam Watson-Wright, when you talk about peer review, who does the peer review? Is it within the department, or do you go outside of DFO to ask for a specific analysis of information that is provided to fishermen?

Dr. Wendy Watson-Wright: Mr. Chair, I'll answer the last question first. The peer review very definitely goes outside the department. As I mentioned, we bring in academics, we bring in industry, we bring in international experts, if need be, and we bring in other regions. So we very definitely go outside the department.

In terms of Larocque, of course, as with everything in the department and with science, it's not simple. We have done quite an extensive analysis as to what partnering arrangements we have with industry that could be possibly considered fish for science. There is, within that, then, an analysis that needs to be done as to whether this will continue, would we try to do it ourselves, or will the industry be willing to pick that up in some other way. And in fact we have had very positive signals from at least some parts of the industry that they very much wish to sit down with us to ask how we can work through this together.

• (1145)

The Chair: Thank you.

You're out of time, Mr. Stoffer.

There are a couple of points. You mentioned feature articles that will be coming out from the science department that you will certainly make available to the committee. We would like to have those. You mentioned also that you had, I believe, some long-range and short-range planning available, some plans available.

Dr. Wendy Watson-Wright: We have a draft five-year research plan, and I would propose that once we've come to ground on that a bit more—it's pretty technical at this point—within the department and externally, I would very much wish to share it with this committee should you so wish.

The Chair: You'd be surprised how quickly we can get through the nomenclature.

The first annual report is available now?

Dr. Wendy Watson-Wright: It's in press.

The Chair: If you could give us some further written clarification on your pesticides and toxic chemical analysis, that would be useful to us. If you could make that available, it would be appreciated.

I'll make one comment before we go to our next questioner. When we did the study on northern cod, the one thing we found that was extremely consistent and, frankly, one of the great losses, due to political interference in the fisheries department—and I'm not making that as a partisan statement—was that disconnect between science and the fishermen on the ground, the person out in the boat who, like you, is an observer and has in-depth knowledge of the resource, the climate, and the geography. Many of them have years and decades of information that's very important to your work as a scientist. I think that's been the great loss.

I don't make any apologies for politicians who have interfered in the process, and who have hindered and hurt the fishery by political decisions. But I do see that disconnect widening, and I'm wondering if you're seeing it coming back a bit, and if you have any advice on how we get back to having a good relationship between science and the fishers.

I realize that sometimes those of us in political life are problematic to that, but do you see a way to bring them closer together?

Dr. Wendy Watson-Wright: Thank you, Mr. Chair.

I would ask for clarification on one of your first points on toxic chemicals and pesticides. I was referencing the centres of expertise. Do you want information on the centres of expertise or on the work we're doing?

The Chair: If you could, I would appreciate information on the work on pesticides and toxic chemicals.

Dr. Wendy Watson-Wright: Okay, we will come back to you on that.

In terms of your point about the disconnect between fishermen and scientists, this is one that keeps me awake sometimes. I think it is an issue. We have tried and we will continue to try to address it.

As you may recall, one of the programs we've put in place is the sentinel surveys, whereby we work directly with fishermen. They do the surveys and analyze the results together.

We also have the fisheries collaborative science program, in which we are trying to effect more partnering with science. In your own home province, we have the Fishermen and Scientists Research Society, where we're working closely with the fishermen.

I think we can do more to bring each side together. At the end of the day, there will always be the fact that sometimes if the advice isn't coming out the way people want it to, there will be a disagreement. But I don't think that's what you're speaking about. You're speaking about the fact that they just don't believe it. Our own minister is very concerned about this and has certainly encouraged us to work more with the fishermen. We are going to do that.

In fact, when I spoke of our partnering in the collaboration strategy, this would involve more active outreach to the fishing industry, not just to explain what we do, but to figure out.... I want to know, how do we incorporate this knowledge, which isn't necessarily quantitative, into our models for advice?

Everybody was struggling with that, but it's one of the major issues I see, so I'm open to your advice. We will try to move forward on what we can do, but I think we're on the same page.

• (1150)

The Chair: I think we are.

Mr. Lunney.

Mr. James Lunney (Nanaimo—Alberni, CPC): Thank you, Mr. Chair.

I'd like to welcome all our representatives here as well.

I think the chair, in his brief intervention, actually highlighted something. He highlighted an issue there that perhaps is the elephant we don't talk about that's sometimes in the room—that is, the delicate interchange, the circles of influence. There are the fishermen on the ground and the harvesters, there's the circle of scientists trying to gather information, and then there's the circle of politicians. These worlds are certainly not mutually exclusive. The influences are all intertwined.

We all want science to drive our decisions, yet often I think the scientists are frustrated because the politicians are trying to respond to the needs of the fishermen, and the resource suffers as a consequence.

In this dialogue, though, somehow we really want the best science to drive things. I think that's what most of us want, but I simply want to acknowledge the frustration that scientists must feel at times because of the other influences that get in the way.

You started the story here about the untold story and some of the communication challenges that are related to that. I think DFO has done some excellent science. Out in our part of the world, we have the Pacific Biological Station, which is one of the world's foremost scientific institutions. I do want to ask about that. We have some world-class scientists there, Dr. Dick Beamish and others, and I think, frankly, we don't sing our own story well enough.

Because the whole concept of ocean science is so huge, frankly, not only do the scientists not know everything, but the public at large is even more ignorant about what's in there. I live on the coast, and it's amazing the number of people who live there who haven't been out on the water, who drive along and take a peek at the coast.

There's so much that we just don't know. I did my first scuba dive on the coast. As soon as you go under the water, there's a whole other world. I think everybody should visit under there for a little bit; they might appreciate what's going on a little more. Even the fishermen probably should take a look under there.

The bottom line of what I'm driving at in these comments is that with so much that we need to know to appreciate better ocean ecology, the delicate interactions, what's really going on in there, we want our scientists to have the resources to do the job right, and we also need to be able to listen. So I think we need to look at the communications strategies.

You outlined another challenge here, and that is the expanded mandate. It used to be all just fish and stock management. Now you've suddenly been tasked with healthy and productive aquatic ecosystems, as well as the sustainable fisheries, as well as safe and accessible waterways, and the hydro-geographic tasks, and so on. It is a huge, huge mandate, and I feel that we've really been underresourced in trying to tackle this mandate.

So we want to be of assistance in trying to make sure that our scientific community has the tools to move ahead on this thing and also that we are able to communicate our successes. We know, too, with the challenges the oceans are facing with climate change and so on, which has been referred to here, that there are other groups also using science to drive other agendas and to represent issues that influence decisions, that sometimes manipulate science for their purposes as well. Ultimately, we need information to make the best decisions, and we all have an interest in trying to get there.

I want to go back to the money question that Mr. Stoffer mentioned. I would just ask if you could explain. You mentioned that vessel numbers were included there. I think what you meant by that was not the number of ships on the ground—unless it was—but the cost of running vessels. Did we acquire new vessels? Is that what's part of that? Could you please expand on that for us?

Dr. Wendy Watson-Wright: Yes. Sorry, I'd like to just come back to one of your first interventions, and then I'll answer the vessel question.

I agree with you completely on getting our story out there. You've given me the opportunity to say that in 2008 we will be celebrating the centenary of our two oldest research stations in the country. Both the Pacific Biological Station and the first permanent station in St. Andrews will be 100 years old. St. Andrews began as a floating station. So 2008 is a big year.

We have at least three international conferences we will be celebrating. One is on the west coast, the PICES—it doesn't have anything to do with the acronym, but it's the North Pacific Marine Science Organization. We have ICES, which is the International Council for the Exploration of the Sea, coming to Halifax in 2008. And we have the American Fisheries Society here in Ottawa in 2008. So I would ask this committee to help us advertise that.

Coming back to the numbers of vessels, what I meant is that the vessel budget was included in the 2005-06 figures, but not in those for 2006-07. Normally, that's around \$36 million.

● (1155)

Mr. James Lunney: I see. So that \$26 million or something would show up somewhere else, but not in the management section here. That would account for the \$23 million or so.

Dr. Wendy Watson-Wright: In one year it was included and the next year it wasn't, because it had already been withdrawn. Each year I transfer this money to coast guard.

Mr. James Lunney: Thank you for clarifying that. It's very helpful.

By the way, you said something about being put on lists. I think that had to do with scientists who were speaking at the department or updating information, so that we could be informed when some of these discussions go on. I think you'd find that most of the members around the table are actually quite interested in the science. We like to know what's going on down there; we all feel we don't have enough information.

We have these bacon and egghead breakfasts here. Some of you probably attend occasionally. We're invited to attend, and most of us try to get there whenever possible.

On the oceans issues, we're particularly interested. I think we would welcome an invitation to some of those presentations.

Going on, then, I want to ask specifically—and I'm glad you did the little pitch about the centenary coming up—about the Pacific Biological Station. Maybe you could comment on it. Are we moving ahead with adequate funds for the research that's required there? Are there funding increases or decreases? I probably should have asked that when we were discussing the main estimates the other day. Can you comment on whether the scientists on the front line are getting enough funds to move ahead with the projects that need to be done?

Dr. Wendy Watson-Wright: Thank you for the question.

If you ask any individual scientist, of course, they can always do more if they have more, and I agree with that.

We have had an augmentation of the science budget. As our minister has said when he's appeared before committee and has told us many times, he wishes to see increases in science. He has allocated, and we have the numbers—on the transformational plan, for example—on how they've been allocated across the regions. The Pacific region is the largest; the Maritimes is almost as large.

As I said, we have had the direction on the expenditure review, on the stock assessment. We have had other investments, and again, we've had augmentation.

In terms of where we are now, we have a very supportive minister and we're very pleased with that.

Mr. James Lunney: Thank you.

I have one more question. I want to ask about the Larocque decision regarding not allowing resources to be used towards funding science. I don't know that we fully understand this decision—when it happened and what the implications are.

Could somebody comment on the details surrounding that decision and the implications for the department?

Dr. Wendy Watson-Wright: It was June of this year when the Federal Court of Appeal ruled, in what's now called the Larocque decision, that fisheries resources do not belong to the Minister of Fisheries and Oceans and that the minister did not have the authority to finance any of the department's activities by granting a licence to fish and sell, in this case, snow crab.

On October 18, another decision came down from the Federal Court that applied the principles of the Larocque decision. This is called the APPFA decision—the Association des Pêcheurs de Poisson de fond Acadien. Essentially it said the same thing: that we can't do this.

We then looked across the country to see where we have such arrangements whereby there's an allocation of fish that is then sold, with the money coming back in to fund the activities. There are varying degrees in how it's being interpreted, but we've done a fairly thorough analysis as to how much this might entail—we're not sure about that—and how much is absolutely essential to carry on. I think we need to work very closely with the industry to see how we move forward.

• (1200)

Mr. James Lunney: We do test catches, to see who's where when we have migrating species. Are we talking about the sale of those fish that are caught—for example, migrating Fraser salmon coming along Vancouver Island? In those test fisheries, would the fish caught be sold to help fund the—?

Dr. Wendy Watson-Wright: That particular issue is part of the consideration under Larocque, although it has a few differences from the east coast decisions.

Sylvain may wish to say something on that.

Mr. James Lunney: Was Larocque at an appeal court? Are these decisions being appealed, or was that already an appeal court?

Dr. Wendy Watson-Wright: Larocque was in the Federal Court of Appeal. The first decision came down in May 2005, and it came in favour of the minister. The appeal came in favour of Larocque.

The Chair: I think that takes the rest of your time, Mr. Lunney.

Mr. James Lunney: Mr. Paradis was about to respond, Mr. Chair—please.

Mr. Sylvain Paradis (Director General, Ecosystem Science, Department of Fisheries and Oceans): The test fisheries are being assessed, as are the other issues. We had a variety of agreements. As long as the fish is used to carry out activities, it has to be looked at in terms of how the agreement was actually reached with the various fisheries associations—or the fleets, in that case.

The Chair: I have one final point in regard to stock assessments, and I think we really need to put it on the record. All of us here looked at the collapse of the cod. We've seen what happened in other fisheries, we've studied a number of them in depth, and to be fair, in

response to Mr. Byrne's statement, I think there needs to be some clarification.

In all of those issues that we studied, we certainly saw examples from all governments of political interference. We saw bad decisions made by deputy ministers, but we didn't see—at least I didn't, and I want to put this on the record—very much bad science.

There has been a lot of good science out there and some poor decisions made from it. There has been a lack of science, but there was a lot of good science, and under difficult circumstances, you folks have managed to do that. I just want to put that on record.

Thank you very much.

Go ahead.

Dr. Wendy Watson-Wright: I would like to thank you very much for that, Mr. Chair. It will mean a great deal to our scientists.

The Chair: Very good.

We have one more group of witnesses to appear, so we'll take a short break for thirty seconds to allow this group to leave. Then we have the World Wildlife Fund.

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_____ (Pause) _____

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• (1205)

The Chair: Thirty seconds runs into five minutes in a hurry.

I would mention before we start—I think most people were given this—that Dr. Jean-Denis Dutil, a DFO scientist at the Maurice Lamontagne Institute, will give a talk entitled, “Cod Recovery: Food for Thought”, this Friday, December 8, from 1:30 to 2:30, at the Peter Mitchell Room, 200 Kent Street.

Some of our members may want to take that in, if they're here on Friday afternoon.

Pursuant to Standing Order 108(2), the study on marine conservation issues on the east coast, I'd like to welcome our next witness from the World Wildlife Fund of Canada, Robert Rangeley, the vice-president for the Atlantic region.

Welcome. I'd ask you to start your presentation. I'm sure we have members who are anxious to ask questions.

Mr. Robert Rangeley (Vice-President, Atlantic Region, World Wildlife Fund Canada): Thank you very much.

I would like to thank the committee for this opportunity to appear before you today. My name is Robert Rangeley. I'm a marine biologist and I am vice-president of the Atlantic region for WWF-Canada.

First, I should apologize. This is a last-minute invitation. We didn't have time to get the translated copies ready. There is a presentation with the chair.

With me is Lorne Johnson, director of our Ottawa bureau.

I'll tell you about WWF-Canada very briefly and then I'll get into some of the issues we'd like to discuss with the committee.

WWF-Canada was founded in 1967 by Senator Alan MacNaughton, and it has become one of the country's leading conservation organizations. We enjoy the active support of 60,000 Canadians. As a member of the WWF International network, we are active in over 100 countries worldwide. With our supporters and partners, we seek to achieve the WWF vision, which is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. We want to do this by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

Today, I'm going to begin with one of our priority conservation objectives: the recovery of the Grand Banks. I'll discuss specific measures required to achieve sustainability in all our marine waters and the consequences of inaction. A legacy of short-sighted fisheries decisions since the advent of industrial fishing in the 1950s, even up to the present, has impacted marine resources globally, but maybe nowhere nearly as dramatically as in the Grand Banks. These decisions led to ecological collapses, economic hardship, and uncertainty.

Fisheries collapses, where some stocks declined to less than 1% of their historical highs, were thought to have bottomed out when moratoria were imposed in the early 1990s. How wrong we were. Most people assume that because the fishing of some species is banned, those fish stocks are no longer being caught, but this is clearly not the case.

For example, we know that in 2003 alone, up to 5,400 tonnes of cod on the southern Grand Banks were caught in bycatch. This represented some 90% of the estimated stock at that time. That was a fishery that had already declined and had been on moratoria since 1994. Despite this bleak scenario, the Grand Banks are not lost. There's still considerable productivity, and the building blocks for recovery exist. To reverse this situation there first needs to be a positive vision for the Grand Banks.

In an effort to get discussions started, WWF has proposed a vision for the Grand Banks whereby levels of productivity and species richness return to 1950s levels by 2050. This would mean a return to a balanced, healthy ecosystem supporting lucrative fisheries that provide lasting economic benefits to Atlantic Canadians and distant water fleets alike. There is still a chance, and WWF and many others are committed to making recovery a reality.

If Canada is to undertake an effort to allow recovery to happen, we must change how our oceans are managed, and we're long overdue. Despite nearly 15 years since the first cod moratorium, there is still no recovery agenda and no action plan. What needs to be done? Fundamentally, fisheries management must shift from a focus on commercial species to managing on an ecosystem basis where biodiversity and habitats are the values to sustain. This is old news

and is not controversial. As you've heard from your previous witness, this is an agenda item.

If we accomplished this feat it would bring Canada in line with other progressive jurisdictions such as in the Alaskan North Pacific and in CCAMLR, the regional fisheries management organization for the Antarctic. They have successfully used ecosystem-based management to build sustainable fisheries and livelihoods. These are good models for Canada to follow.

The three measures I am about to describe must be applied in all Canadian waters; they are straightforward and well acknowledged. The Department of Fisheries and Oceans has made the commitment. The problem is moving from words to action. Further, Canadian leadership, that is walking the talk, will influence the Northwest Atlantic Fisheries Organization, NAFO, and will inform the reform process currently under way. This is crucial for Grand Banks recovery, and it's our last best chance to get it right.

● (1210)

Turning to the measures, first, DFO must lead the development in the implementation of recovery plans for depleted stocks. As has been clearly demonstrated, moratoria alone are insufficient. Such drastic measures must be accompanied by effective recovery plans, which include measurable targets, with timelines and comprehensive management measures that address all sources of fishing mortality, including bycatch, and that protect important habitats.

If a cod recovery strategy were put in place, decisions such as those taken last spring that opened the northern cod fishery and also permitted recreational cod fishing would have been measured against the objectives of the plan. That this didn't happen signals a willingness to once again roll the dice with cod recovery and future livelihoods.

Second, DFO must develop and enforce measures to significantly reduce bycatch. Current rates of fishing mortality, particularly through bycatch, are clearly inhibiting the recovery of moratoria stocks. Bycatch is also contributing to the overexploitation of actively fished stocks and to impacts on non-commercial species as well. As a minimum, absolute bycatch limits must be set, and set at levels that will promote recovery.

The third measure is that DFO must protect habitats. Canada needs to accelerate the establishment of a network of marine protected areas. Currently, only 0.5% of Canada's waters are protected, far short of the government's commitment to establish representative marine protected area networks covering at least 10% of our oceans by 2012.

Identifying and protecting sensitive areas, such as coral forests or areas that serve as fish nurseries, are crucial for recovery as well. Fundamentally, protected area networks, properly designed and implemented, are an essential tool to deliver on recovery goals and the ecosystem-based management objectives. Healthy oceans depend on them.

While progress on establishing protected areas has been slow, there are some opportunities to act immediately.

For example, the minister could move swiftly to sign off on the eastern Scotian Shelf integrated management initiative, also known as ESSIM. He needs to sign off on the plan, which has been fully drafted now. It probably represents the most significant move towards involving all stakeholders in oceans management. It includes a plan for protected areas.

As well, three MPA-candidate areas have been formally recognized by DFO and other relevant government agencies as low-hanging fruit, and their designations have been promised for many years. They are ecologically outstanding and have strong local support. The government could live up to these commitments and swiftly establish the Bowie Seamount on the Pacific coast, the western Lake Superior National Marine Conservation Area, and Igalituuq National Wildlife Area as protected areas.

What are the consequences of inaction or maintaining the status quo? Well, recently the world was shocked to learn that the collapse of all wild-harvested seafoods could become a reality before 2050 unless fisheries reforms are implemented. The study, published by Dr. Boris Worm in the journal *Science*, showed that the cause of this catastrophe is an ongoing decline in biodiversity resulting mainly from bad fisheries practices. This decline is reducing the ocean's ability to produce seafood, but also to resist disease, filter pollutants, and recover from stresses such as overfishing and climate change.

Canadians are acutely aware of the social and economic impacts such a disaster can produce. While it is obvious that we are on a dangerous path, the good news is that recovery of fish stocks is possible if measures are taken to promote and protect biodiversity.

WWF challenges this Parliament to help make the vision for Grand Banks recovery a reality by taking action now and delivering on Canada's commitments to oceans management.

I thank you for your time and your attention. I will be happy to discuss these issues with you.

• (1215)

The Chair: We appreciate your report, Mr. Rangeley.

We'll go to our first questioner, Mr. Matthews.

Mr. Bill Matthews: Thank you, Mr. Chairman.

And thank you, Mr. Rangeley, for coming.

I listened with great interest to your presentation and would say to you very honestly that I'm very interested in Grand Banks cod and Grand Banks fish resources in general—for a number of reasons, of course. I care about protein supply for the world, but I happen to represent a region of Newfoundland and Labrador, which is the south coast, that has been decimated, basically, because of a downturn in our cod stocks. That's why we settled where we now live, although there are far fewer of us now. We've gone elsewhere to look for work, because our cod has been decimated.

I am fortunate in one way, in that the area I represent has two commercial fisheries, 3PS and the gulf cod. But they're in the south, and I think a lot of that is due to there being warmer water and probably greater nutrients too. I think that's a factor. But having said that, we're nowhere near where we were.

Speaking to your presentation concerning a recovery plan, no one can argue against it. I support it, I think. Successive governments have been negligent in not having a proper recovery plan.

Reducing the bycatch is a no-brainer, but I have a quick question to you. Who has been taking the bycatch mostly? You talk about the southern Grand Banks. Who's been taking it?

You can't argue too much about protecting habitat either. But what I found most interesting in your presentation—and I'd like you to answer the bycatch piece, if you can—is this.

We talk about managing the ecosystem and about a balanced ecosystem. There are a number of factors that caused the decline of our cod resources, and it's going to take dealing with a number of factors to get the cod resources to rebound, to regenerate.

You never mentioned predator behaviour at all. I'd be interesting in hearing you respond and comment on that, because it is one of the factors with the three you've outlined, which are very important and which I support. Here's another one you didn't talk about, and I think it's critical that we deal with it.

• (1220)

Mr. Robert Rangeley: Yes, very good.

I'll quickly go to the bycatch and then I'll deal with other factors, as you mentioned.

The astounding thing about the southern Grand Banks, and the reason it is such a good model for how things have gone wrong and how they could become better, is that it is one of the most productive areas. We have the cold Labrador current bringing nutrients from the Arctic; we have the warm gulf stream, which creates warm waters and high production. It's from there, in the southern Grand Banks, that many scientists believe recovery of cod will begin first.

Unfortunately, since 1994, when the moratorium was put in place, bycatch levels increased every single year. I just cited the worst possible year, which was 2003. That was a mix of Spanish, Portuguese, and Russian fleets fishing on a number of species, and Canadian fleets fishing yellowtail in particular on the southern Grand Banks. So there has been a mix of Canadian and foreign fisheries implicated.

There has certainly been some strong effort by the Canadian fleet and the department to work very hard to reduce the Canadian bycatch through gear measures and so on.

Regarding the question about predators—and no doubt you're speaking of seals—there are two things here. One is, what do we do about it? One thing you'll find with any animal population that is being severely impacted is that their resiliency to withstand external environmental factors such as variability in climate change or predation goes down. A strong, healthy cod stock may in fact be more resilient to high predation numbers or high numbers of predators than a stock that has been decimated.

As to whether killing more seals would do the job, I think the evidence around the world is that predator control just has not worked and is not a good way to manage ecosystems.

It's a different question, if you're asking what we are doing about predators, from the question of a seal hunt, which is a sustainable harvest. I'm not mixing up those two issues.

Does that get at your question?

Mr. Bill Matthews: It does somewhat, but coming from the part of the world I come from, it seems that organizations such as your own would rather see 20 million seals than see a rebuilding of a cod stock that would sustain a rural way of life. I'm being very honest this afternoon. We wear the impact of all of this and we feel it, when a third or a quarter of our population have to go elsewhere to work and yet we see as many seals as we see about.

I've asked people, why do you care more about seals than you care about human beings? To me, people are obsessed with them. I agree there are a number of factors that have to be addressed. Your bycatch one is very legitimate; your habitat is very legitimate; a recovery plan is very legitimate. But what I can't understand is why there's a resistance to recognizing another factor.

The seal herd is sustainable at 2 million animals, but we now know it's a minimum of 6 million harps, not counting the grey, not counting the other hooded seals and harbour seals. Do you know what I'm saying? Let's all get mature about this and let's include that as a factor and deal with it.

• (1225)

Mr. Robert Rangeley: It is a factor, and I just want to put on the record our position—which is on the record—that we don't oppose the seal hunt. We have no position about seals, in particular. It's a sustainable hunt.

The Chair: I'll try to believe that comment, Mr. Rangeley, and to be fair to the World Wildlife Fund, they have not been anti-seal hunt, at least in recent years, and have supported a sustainable hunt. Other groups, which they often get mixed up with, such as the International

Fund for Animal Welfare and other groups, have been anti-seal hunt, but the World Wildlife Fund—

Mr. Bill Matthews: Mr. Chairman, I'll just finish with this comment.

Why wasn't there a fourth factor? Why weren't there four factors? Conveniently, sometimes, you can leave something out.

Mr. Robert Rangeley: Well, we want to manage our activities; we can't manage the ecosystem. Ecosystem-based management is not about managing ecosystems. We cannot manipulate the ecosystems; that's been shown time and again. Predators are there, and I absolutely agree they're a factor, but it's not something we can control in a scientific management approach.

Thank you.

The Chair: Mr. MacAulay.

Hon. Lawrence MacAulay (Cardigan, Lib.): Just one question, then. Are you telling us that in fact if the population went from 6 million to 2 million, it wouldn't have an effect on the cod stocks?

Correct me if I'm wrong, but one of the biggest consumers in the world of cod is the seal. Is there something I'm not understanding? If there are fewer seal, or if the seal is controlled to be fewer in numbers.... If it's sustainable at 2 million and sustainable at 20 million, it would seem to me it would take a lot more cod fish to feed 6 million than it would 2 million, and that not being a factor just....

We're having a big time in this country trying to educate the world. You indicate you don't oppose the seal hunt, but the fact is, and I think you're fully aware, we have so many organizations and very wealthy people who do nothing but promote—and sometimes, I'm sure you're well aware, quite incorrectly—how the seal hunt is operated, using pictures that are ten or fifteen years old.

When you come here and one of the factors is not seals, it's just hard to understand.

Mr. Robert Rangeley: The scientific evidence is such that it's not a direct-line relationship between the number of seals and the number of cod consumed and the impacts on the population. Sure, they.... I'm not going to defend....

Predator-prey interactions are such that it's a complex dynamic; it's not a straight-line relationship, and it never will be. Seals eat lots of other things; cod populations aren't driven by the number of seals. If we have strong cod populations, they certainly could be resilient to the seal harvest.

But the point is.... And let's get away from “one predator, one prey”. That was the whole point of my talk: we have to look at ecosystem-based management, putting back some of the refuges and some of the resiliency into the system that we're continually impacting, such as corals and other habitats and other spawning areas for cod, for example.

It's a factor, but no one can tell you how many seals taken will result in a return to cod recovery.

The Chair: Go ahead, Mr. Cuzner.

Mr. Rodger Cuzner (Cape Breton—Canso, Lib.): I'll be super quick, honest to God.

Our chairman made the comment during the last witness panel that we do have some good science. Could you comment on DFO science in general? Does it suffice? Is it focused properly?

The Chair: Very quickly, please.

Mr. Robert Rangeley: Sure. That's a good question.

On the quality of science, there are excellent scientists at DFO, no question. Are their priorities in the right place? We work closely with DFO all the time from a science policy management point of view. Many DFO scientists know what to do. I said this is old news about ecosystem-based management. DFO scientists have been at the forefront internationally in developing the tools and the models of how to move forward. The problem is implementation. If there was a focus for scientists—but it doesn't rely on just scientists and it doesn't just rely even on DFO—it's certainly DFO decisions, managers, and taking those approaches and making them happen.

We don't need more science to make more things happen, in other words. The science isn't the limiting factor.

• (1230)

The Chair: Thank you, Mr. Rangeley.

Monsieur Blais.

[*Translation*]

Mr. Raynald Blais: Thank you for your testimony, Mr. Rangeley.

I don't have any choice but to talk about the seal file. I represent Gaspésie and the Magdalen Islands. I'm not going to get into a scientific debate, but I'm going to tell you my opinion and I'll ask you a question.

In view of the drop in the cod population, the "seal factor" takes on greater significance. This is no longer a situation in which the cod population is healthy and marine resources are abundant. In these conditions, whether we like it or not, seals are having more impact. You say that there is not a cause-and-effect relationship. That reminds me of the fact that there are more shrimp because there is less cod. This is a cause-and-effect relationship. That's my opinion. I'm not going to get into a scientific debate, unless you really insist on it. It's for you to see.

You say you agree that there should be a properly run seal hunt, as is the case now. However, the people from the International Fund for Animal Welfare and the Humane Society give me the impression of acting just for the money it brings them. Maybe they just want there to no longer be a seal hunt, but I'm not even sure of that. Maybe it's in their interest for it to last so that it will make them even more money. Their arguments have no scientific basis. It is disinformation, demagoguery.

What do you think about the campaign against the seal hunt led by the people from the International Fund for Animal Welfare and the Humane Society?

You hesitate. Silence gives consent?

[*English*]

Mr. Robert Rangeley: Let me try. I think I understand.

Our position on the seal hunt and our understanding of it, socially and economically, is that it is a legitimate harvest activity. It has a

long, cultural history, as do many of the fisheries. It's a legitimate harvest and it's sustainable. And that's about as far as we go with the seal hunt. We have no issue with the seal hunt.

In terms of understanding that it plays a role in gulf and Atlantic provinces, yes, we get that. We understand. In fact, we've worked with seal harvesters. It's a non-issue for us.

I don't know what else to say, unless I've misinterpreted your question.

[*Translation*]

Mr. Raynald Blais: That was more a comment than an answer.

I'm tempted to use antiparliamentary terms, but I won't do that.

I want to know what you think about the demagoguery and disinformation campaign led by the International Fund for Animal Welfare and the Humane Society.

[*English*]

Mr. Robert Rangeley: I have no comment on that. I'm dismayed when I hear inaccurate information anywhere. I know it's such a volatile issue. As far as I'm concerned, I respect the right of animal welfare and animal rights groups to have their opinions. I don't share many of their opinions. We are a conservation organization. We stick to what we know, which is conservation. We stay out of the animal rights/animal welfare issues.

What can I say? I feel your pain. It's difficult. I can't imagine being in the centre of that as many in P.E.I. and the north coast and Newfoundland are.

• (1235)

[*Translation*]

Mr. Raynald Blais: If your group or organization could denounce this demagoguery and disinformation campaign, it would help us and it would help bring out the truth. I'm not asking you to say that the seal population in its entirety should be exterminated or to propose any such measure. However, in my opinion, we have to criticize those who should be criticized. I am not criticizing the fact that these people are concerned with endangered species, but I'm criticizing the fact that they use disinformation and demagoguery to achieve their financial ends.

I'm not asking you to go as far as I do, but I'm asking you to take part in the fight, because we really are in the throes of a struggle. We are fighting a group that makes money at our expense among the public. These people say that the seal hunters are barbarians and that this hunt is completely futile.

The more people knew the truth of the situation, the more they would criticize those involved in demagoguery campaigns, the more the situation would improve for everyone and the more the truth would come out.

[English]

The Chair: Could you give a very quick answer to that, Mr. Rangeley?

Mr. Robert Rangeley: Very quickly, I think we have done what you've said and we've done all we can. In other words, we have not opposed the seal hunt. The fact that the world's leading conservation organization doesn't oppose it on conservation grounds says something about our science. We do look at the seal hunt, believe me. The day it became a conservation issue we would have to have a comment on it from a conservation point of view. Right now, it's not one, and it's distracting a heck of a lot of attention I think from some of the more important issues—resources and everything else. You have no idea how many millions of letters we've received internationally on this.

You recognize we're in a hundred different countries and there are a lot of cultural differences in our organization among the different countries, and it has caused problems. We've looked at it very deeply in our organization because of some of these differences. We are unified as a global organization, not just WWF-Canada, on our position. I think that's the strength we can bring to it.

We're not about to enter into a campaign against other organizations. We have plenty enough to do towards conservation issues and to hold our course, and I think our position says all it needs to say about our views on other claims on the credibility of the science.

The Chair: Thank you for that, Mr. Rangeley.

Mr. Stoffer.

Mr. Peter Stoffer: Thank you, Mr. Chairman, and thank you, sir, for appearing before the committee.

You mentioned marine protected areas, and I couldn't agree with you more. Like you, there's a whole whack of us who are extremely frustrated at the slow progress of marine protected areas. We keep hearing the platitudes that they're important and that they need to be done, yet we're not doing them. I'm just wondering why you think that is. Why do you think there's such a reluctance on the part of government through the Department of Fisheries and Oceans and other departments to move quicker on this very important issue when they know the science is there? All of this is old hat, as you said yourself. Why, in your opinion—the WWF—do you think the government is so strange in its approach to this very important issue?

Mr. Robert Rangeley: I wish I could answer that. We have a commitment to 10% by 2012, and we know what the date is now. We have a few postage stamps of protected areas in our oceans—about half a percent.

The interesting thing—and it's the result of the work we've done and of taking on the best knowledge of protected areas around the world—is that we've developed this planning framework for protected areas and have just completed a very comprehensive science document, which I don't have with me because it's just at the printers, on actually how to put protected areas in place.

There are a couple of things you have to know about protected areas. The approach we're advocating is not to talk—arbitrarily, in a sort of top-down approach—about putting lines on a map and saying, “fishermen out”. We're talking about, for example, the model

that's being undertaken in the eastern Scotian Shelf. That was a DFO-led process, and it came out of the Gully MPA, as you know.

The recognition of the Gully—our first protected area in Atlantic Canada—came about through a rather messy process. It's an important, significant area to protect—the North American east coast's largest canyon, with northern bottlenose whales, and then, as they started to learn more about it, deep sea corals, and all sorts of important values to protect.

The problem was—and I spoke to a lot of industry at that time—that it appeared to be ad hoc. It came out of the blue, and they didn't know how to react to it.

How do we incorporate all the users into a plan for protected areas? We took that challenge on. One way was to participate in and help to advance the goals for integrated management. That's in one particular area, and the ESSIM area is a pilot for Canada.

That's been my point. We really need to see the minister sign off on that plan in the new year—which, all indications are, will happen. It's a good plan.

Now, about the protected areas. We're not talking about ad hoc protected areas popping up everywhere. What we're talking about is systematic planning, representative networks, but the neat thing about the approach we're advocating and the tools we've used—and it's based on the best models around the world—is that it's a flexible approach. You recognize what your goals are, the values you're trying to conserve, and then you involve other stakeholders in it.

There's actually a fair amount of flexibility around where you can put those boundaries. As well, many MPAs are zoned for different types of use.

So we're talking about a zoning approach within which we have 10% of our oceans, protecting the most valuable places and representative habitat throughout, that's engaging industry and other decision-makers in the process, as opposed to creating a one-off map of the protected areas.

Part of the problem, and the initial resistance from industry, which I think is driving some of the resistance in the department, is that they saw one MPA as a slippery slope to more MPAs and more rules against the industry in places they couldn't fish in.

It's just the opposite. Yes, it's about managing ecosystems, and it's the kind of thing that's going to help us get to where we need to go in terms of recovery and long-term sustainability. That's the approach we're advocating.

• (1240)

Mr. Peter Stoffer: My other question for you—and I think you're on the right track, and I did ask the minister, and the committee is aware—is about a couple of lakes in central Newfoundland that have been, through a schedule 2 process, been made available to a mining company to be turned into tailing ponds. Of course, the objective would be that they would restore the habitat or upgrade the habitat somewhere else, so that DFO does not have any net loss of habitat. That would equate to saying that this company can proceed with what it does.

I always equate that to being like clear-cutting a national park and planting trees in your back yard.

The Chair: Do you have a question there?

Mr. Peter Stoffer: I do. I'm coming to it.

The Chair: Well, I'll tell you, you're out of time, so very quickly

Mr. Peter Stoffer: On the issue of dragging, the government, as you know, didn't support a moratorium on the high seas, which the UN was trying to do.

As part of what you're saying, although you didn't say it, does WWF support some sort of a moratorium, not only on international high-seas dragging, but on dragging within our 200-mile limit as well?

Mr. Robert Rangeley: No, we don't.

Our position on this recent decision by the government not to support that high-seas moratorium was that it's unregulated fishing. Canada was on the international task force on IUU, which is “Illegal, unregulated, unreported” fishing. We have all the commitments for ecosystem-based management and all the other things I've been talking about. Why we wouldn't support a moratorium, a temporary cessation of fishing—in this case it focused on trawling, and I think that's what got everyone anxious, that it focused on a gear type....

The point is that we can't support unregulated fishing. We have enough trouble with our fish stocks in places where it is regulated. And that's what that was. It's totally incomprehensible to me why Canada would not take a position to do that.

The Chair: Thank you for that, Mr. Rangeley.

Mr. Kamp.

• (1245)

Mr. Randy Kamp (Pitt Meadows—Maple Ridge—Mission, CPC): Thank you, Dr. Rangeley. Maybe another time I could try to explain to you why we took the position we did on that, but I won't try to do that here.

There are just a couple of areas on which I'd like a little more clarification.

If we had 10% of our ocean area in MPAs, and let's say we had met our target by 2012, does your organization have any calculation on how much less fishing would be taking place by Canadian interests, let's say? I think I've heard you say both things, that industry is going to love it because there will be recovery of stocks. But are they actually going to fish less? Are there going to be all kinds of areas now where no fishing is allowed and fishermen are

going to be affected by this? I'm not saying whether that's a good thing or a bad thing. I just want to know if, in your opinion, they will be.

Mr. Robert Rangeley: There are a couple of points there. One, I would not say industry supports protected areas. In fact, I just want to point out something from our recent press release on this. What I said was:

Industry has legitimate concerns about how conservation measures will affect them, and we designed this study to show how these concerns can be brought into the equation.

Some industries get it and want to participate in that, and others are resistant, for the reasons I just discussed.

Remember now, MPAs aren't the goal; they're the tool. And it's a mix of solutions that have to include protected areas based on all the recent evidence, including that science paper I referred to from Boris Worm. There's a positive message in that paper. One was that ecosystem services, the things we get from the ocean, particularly fisheries, are enhanced and increase with increasing biodiversity, and a mechanism to get there is through protected areas. What we're saying is that it's a tool. Our fisheries and our ecosystems are degraded, and we're not going to get there unless we put back some of those refuges and protect some of those key areas and ultimately benefit fishing and livelihoods.

Our goal is not to put fishermen out of work. Our goal is to have long-term sustainability in fisheries, preferably greater fisheries and greater stability in the fisheries, because there's a greater diversity of fish stocks from which to fish and less reliance on invertebrate species on which we're now reliant, especially on the Atlantic coast, because of the “fishing down the food web” effect where we've taken all the top predators out.

Will protected areas result in less fishing? There's no global answer for that. It's going to be a patchwork. It will depend upon the goals. That's the whole point of engaging the fishing industry, but you can only make those decisions around particular areas in a context of zoning. There is a range of tools out there. Protected areas is one tool. It's not about strictly putting fences up and keeping fishermen out. It's about protecting those conservation values that are necessary so that we can fish sustainably for the long term. That's the goal you have to keep in mind when you talk about protected areas, not putting up fences.

Mr. Randy Kamp: I understand that. You make a compelling case for that, but if you could wiggle your nose and be the Minister of Fisheries and Oceans and you were going to set these MPAs so that we meet our target, you must have some idea where those would be and how fishermen would be affected.

Mr. Robert Rangeley: What we have now in our analysis is a series of options out there. I know where a number of the key conservation values are from our mapping, our GIS work, and this analytical work. That doesn't mean each of those conservation value areas has to become an MPA. What I'm talking about is this process in involving industry and decision-makers in making those kinds of tough decisions, so that we're looking at protecting the right kinds of areas for the right reasons and goals. As I said, it's a flexible tool, and until you start applying that tool and then using the tool also to analyze the cost benefits.... One could make a decision that we're going to sacrifice a conservation value for an economic gain, but at least that's a decision that's on the table, as opposed to no planning and no decision-making.

No one has agreed to a map yet, so we can't tell you that, but a key analysis is what you're getting to, which hasn't been done.

• (1250)

Mr. Randy Kamp: With respect to the Grand Banks, are you saying that, in your opinion, the lack of recovery is due to continued overfishing?

When we did the study, I think we did it because the logic would tell you that if you impose a moratorium in 1992, eventually the stock would recover, and it hasn't recovered in any significant way. At least that was the testimony we heard. So we want to try to figure out what the reasons for that might be. I'm just curious, as you seem to be saying that you think there's still overfishing going on.

Mr. Robert Rangeley: It's a contributor. The first thing is I think everyone's agreed now that overfishing was the cause. We got to a certain state through overfishing. There are other factors. We've heard some of them—predators, environmental factors that are conspiring to inhibit recovery. Bycatch on many stocks has been a factor, as has illegal unreported fishing. So there are a number of factors.

Our point in terms of recovery is there's a suite of tools. We're only going to get to recovery if we set some goals, set some targets, and then work towards achieving those targets by putting in the right kinds of protection—limiting indirect mortality and direct sources of mortality such as bycatch and indirect mortality such as habitat loss, for example. We're only going to get there if we set specific goals for recovery. There has been no plan for recovery.

We know that a moratorium is a drastic measure, but it's not sufficient, because we've had moratoria and we still have nine straddling stocks that are still under moratoria and haven't recovered. It's not sufficient, so we have to do something else. The status quo isn't working. In fact, many of those stocks are continuing to decline. They haven't even held their own since the moratoria. That's a pretty sad state of affairs.

Mr. Randy Kamp: I think we agree with you. In fact, one of the things we found surprising was that there was no recovery plan, and I think we commented on that.

Are you saying, though, that you disagreed with the decision to open a recreational and a limited commercial fishery in northern cod this season?

Mr. Robert Rangeley: Whether that fishery was open or not, it was done on the wrong basis in the absence of a plan. You'll

remember what happened prior to the opening of that fishery. It was recommended that northern cod be listed under the Species at Risk Act, and the department, the minister, recommended against that. The decision and part of the rationale was that there be a cod recovery strategy developed.

On that recovery strategy, there is a document called, "A Strategy for the Recovery and Management of Cod Stocks in Newfoundland and Labrador", but it in fact isn't actually a strategy; it's a framework, a working document. But there's nothing strategic about it, nor are there any actions or plans built into that. There needs to be an action plan.

My point with respect to opening that fishery, including recreational fishing, was that it was done in the absence of a plan, and I think that's irresponsible.

I'm not going to argue whether that has further inhibited cod. I looked at the stock estimates and there are a lot of error bars around them, and it's a bit of a flip of a coin as to which side, whether it's going to inhibit or not, but the point is it's done in the absence of a plan.

The other point I made about that is, what does that signal in terms of conservation leadership internationally? We make a lot of noise—and many times well-justified noise—about impacts outside our EEZ by contracting parties to NAFO. Yet, when we make decisions that people are scratching their heads about and saying, "Well, is this conservation?", it doesn't signal the right leadership we want to see, in my opinion.

Mr. Randy Kamp: Thank you.

Is there time for Dr. Lunney?

The Chair: No, unfortunately, there is not. We have 17 seconds, so if you can get it done in 17 seconds....

We're going to Mr. Cuzner.

Mr. James Lunney: I have a quick question, 17 seconds' worth.

You mentioned at the beginning I think something about an integrated management plan. You said something about being at a publisher. Did I misunderstand something there? Has WWF-Canada produced an integrated management plan for the Grand Banks area or some commentary on it?

• (1255)

Mr. Robert Rangeley: No, "integrated management" is a term that's used in the oceans directorate for involving all stakeholders in planning ocean uses. So the ESSIM, eastern Scotian Shelf integrated management, that I referred to is the model or the pilot that's the furthest ahead. There's the Placentia Bay-Grand Banks one, which we were also participating in. There are a whole number of elements in producing this, including an ecosystem overview, identifying significant biological and ecological areas. Getting down to the path where ESSIM is but the Grand Banks one isn't means asking, what do we do with all this knowledge, and how do we change our management? Put all that in the context; hence the "integrated" part of "all stakeholders". That's what I was referring to. So we recognize that.

The way we work globally, around the world, is we would facilitate or convene this integrated approach if it didn't exist here. Actually, it's a success, coming out of the Oceans Act and the oceans directorate, that we have integrated management. It's a model that WWF endorses; hence we've put a lot of our resources to try to make that work. The day the government gives up on it would be a sad time.

So we want to really make sure it's well supported, and all indications are the minister will sign off on the eastern Scotian Shelf plan. And remember, it's a pilot for all of Canada, so it's really crucial that we get the first one right and the minister does sign off on it. That's what we need to see.

Mr. James Lunney: For the record, I wish we had more time to continue the discussion. But thank you very much.

The Chair: I'm sure you do, Mr. Lunney.

Perhaps before we go to our final questioner, I'll have one very quick question. Maybe it's more of a comment.

Many of us at the table looked at the northern cod recovery, and we made a recommendation from this very committee that there be a food fishery or a recreational fishery, if you will, in the Trinity Bay area of Newfoundland. We did that based on what we thought at the time. It looked as if that was a separate stock from the Nose and Tail of the Grand Banks. There's a lot of argument to say that those cod probably, if they come from anywhere, come from the Hamilton Bank. There was certainly a lot more cod on the inshore in those bays than there had been in past years, even though we weren't seeing cod in other places.

So I respect what you're saying, but for the committee, when we made that recommendation, we looked at it on the basis that there's such a separation between science and the people on the shore. We needed to get some buy-in, and we did believe we could make that recommendation, which the minister ended up accepting, based on no further degradation of the stocks, that at least that small fishery was sustainable.

Mr. Robert Rangeley: Yes, and our point is that it's a sequence of decisions leading up to that point. Why don't we have a plan?

The other thing we should remember from that decision—and maybe this is something the committee might want to remember—is that it was publicly announced that the results of that fishery and the recreational fishery would be released in the fall of this year—

The Chair: Yes, absolutely.

Mr. Robert Rangeley: And we're looking forward to seeing the analysis—

The Chair: So are we.

Mr. Robert Rangeley: — and it's well into December

The Chair: Yes.

Mr. Cuzner, final question.

Mr. Rodger Cuzner: Going back to the science, I appreciate your comments on the science. You believe the information is there.

There's an understanding on the part of DFO science that we have to change our thinking. What you're talking about is really a shift in the entire paradigm in how we manage our oceans.

Is there a best example off our shores? Is there somebody who's getting it right and taking an ecosystem management approach to their fisheries?

Mr. Robert Rangeley: There are two good examples, and I mentioned them briefly. It's in our report on ecosystem-based management. This is a report we commissioned from Dr. Andrew Rosenberg, an internationally renowned fisheries expert. We had him do two reports, one on bycatch and then on what we do about ecosystem-based management for the NAFO area, but it was also quite broad. The two models that I recommend Canada follow—the scientists, they know this stuff, they go to the meetings—are the southern ocean, the Antarctic Ocean, which is actually an RFMO like NAFO, but it's the top of the heap in terms of our RFMOs, and is called CCAMLR, the Convention on the Conservation of Antarctic Marine Living Resources, and the other is in Alaska, the North Pacific. They're doing a very good job on ecosystem-based management, and it's paying off economically for the harvesters.

You remind me of another important point, and I haven't said very much about industry and some good news coming from industry. It is very much, actually, a part of how we work. We like to say we work from local to global—in other words, from the local area right up to global influence.

We have partnerships with a number of fishing industries, and what we're finding—and something I've said, for example, to the folks in Newfoundland—is that there are so many good news stories out there about individuals taking on stewardship issues, trying to make it happen in their bay or local area, that we should be getting these out and trying to propagate some of these. You're well familiar probably with Eastport, for example, closing that area for lobster, but there are lots of other really good initiatives.

So part of this can happen as big science ecosystem, understanding the ecosystem and changing that paradigm shift you're talking about, but we also have to encourage the stewardship and local initiatives that come up from fishermen who really care what's going on in their backyard, so to speak. I think there are some good examples.

● (1300)

The Chair: Thank you very much, Mr. Rangeley. It was an interesting discussion today. We appreciate you coming before committee, and I'm sure there are further questions that some of my colleagues may have. They'll have to take them up with you later.

In the meantime, you mentioned two reports. At least one of those reports we don't have. But if you could table those with our clerk, we'd appreciate it, and we could get those out to our membership.

Thanks very much.

Mr. Robert Rangeley: Thank you.

The Chair: We're adjourned.

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