

# **Standing Committee on Fisheries and Oceans**

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## **EVIDENCE**

Tuesday, October 24, 2017

Chair

Mr. Scott Simms

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**●** (0920)

[English]

The Chair (Mr. Scott Simms (Coast of Bays—Central—Notre Dame, Lib.)): Welcome back, everyone. We are now in public and, pursuant to Standing Order 108(2), we're continuing our study of the Oceans Act's marine protected areas.

Let me say for the sake of our witnesses that we have just returned from the Maritimes. We have travelled to British Columbia and the Northwest Territories as well and have heard from numerous witnesses.

We are certainly interested in hearing from our next guests. They were also in the former study from the environment committee. They spoke quite a bit, I understand, and now they are here to talk about marine protected areas.

From Parks Canada, we first have Rob Prosper, vice-president, protected areas establishment and conservation, and Kevin McNamee, director of the protected areas establishment branch. These two individuals are no strangers to this sort of committee business.

As you know, but I guess it bears repeating, you have up to 10 minutes each, if you wish, and then we go to questions.

Mr. Prosper, I'm going to start with you. Are you both doing 10 minutes each? No? Just one of you, and that will be you, Mr. Prosper. Very well, then, please proceed, sir, for up to 10 minutes.

Mr. Rob Prosper (Vice-President, Protected Areas Establishment and Conservation, Parks Canada Agency): Thank you very much

Mr. Chairman and committee members, thank you for the opportunity to testify before the Standing Committee on Fisheries and Oceans regarding your study on marine protected areas.

Parks Canada is the federal agency charged by Parliament with managing an impressive network of 46 national parks, four national marine conservation areas, or NMCAs, 168 national historic sites, and the Rouge National Urban Park. All told, this network protects almost 350,000 square kilometres of Canada's lands and waters, equivalent to an area of one third of Ontario. There is a commitment to add an additional 109,000 square kilometres of protected marine waters in Lancaster Sound.

[Translation]

Established in 1911, Parks Canada is the world's oldest national parks service. In 1998, Parks Canada became a separate agency to

ensure that Canada's national parks, national marine conservation areas, and related heritage sites are protected and presented by Parks Canada for this and future generations.

[English]

In passing the Parks Canada Agency Act, Parliament declared it "in the national interest" for Parks Canada "to protect...nationally significant examples of Canada's natural and cultural heritage", and "to present that heritage...for public understanding, appreciation and enjoyment...thereby enhancing pride, encouraging stewardship and giving expression to our identity as Canadians".

Through the Parks Canada Agency Act, Parliament directed Parks Canada to maintain long-term plans for establishing a system of national marine conservation areas, and the act confirms that Parks Canada is responsible for negotiating and recommending to the Minister of Environment and Climate Change the establishment of new national marine conservation areas, or NMCAs.

It is through the Canada National Marine Conservation Areas Act of 2002 that Parks Canada establishes, administers, and manages national marine conservation areas.

In the preamble to this act, Parliament outlined its vision for NMCAs, affirming the need to

establish a system of marine conservation areas that are representative of the Atlantic, Arctic, and Pacific Oceans and the Great Lakes and are of sufficient extent and such configuration as to maintain healthy marine ecosystems,

ensure that Canada contributes to international efforts for the establishment of a worldwide network of representative marine protected areas,

...provide opportunities for the people of Canada and of the world to appreciate and enjoy Canada's natural and cultural marine heritage,

recognize that the marine environment is fundamental to the social, cultural and economic well-being of people living in coastal communities,

provide opportunities, through the zoning of marine conservation areas, for the ecologically sustainable use of marine resources for the lasting benefit of coastal communities,

promote an understanding of the marine environment and provide opportunities for research and monitoring,

and

consider traditional ecological knowledge in the planning and management of national marine conservation areas....

#### The act further directs that NMCAs are established

for the purpose of protecting and conserving representative marine areas for the benefit, education and enjoyment of the people of Canada and the world

and that they

shall be managed and used in a sustainable manner that meets the needs of present and future generations without compromising the structure and function of the ecosystems, including the submerged lands and water column, with which they are associated.

To that end, non-renewable resource exploration, extraction, and ocean dumping are prohibited by law.

#### Parliament also directed that each NMCA

shall be divided into zones, which must include at least one zone that fosters and encourages ecologically sustainable use of marine resources and at least one zone that fully protects special features or sensitive elements of ecosystems, and may include other types of zones.

#### [Translation]

In short, Parks Canada does not just establish new NMCAs and then throw away the key. Our parliamentary mandate is to both protect and ensure that visitors use, benefit, and enjoy these special places, leaving them unimpaired for future generations.

#### [English]

To date, five of the 29 marine regions that constitute the NMCA system are represented by four NMCAs that protect 15,740 square kilometres of marine and freshwater ecosystems.

In setting priorities for new NMCAs, Parks Canada's focus is on candidate sites located in unrepresented natural regions. To summarize, we have identified potential NMCAs in the 24 remaining regions, except for one on the west coast.

We have confirmed candidate sites in 11 of the 24 unrepresented marine regions. Of these 11 sites, feasibility assessments are under way in two marine regions and pending in three additional regions, and we are beginning negotiations on an IIBA for an NMCA in Lancaster Sound.

Creating new NMCAs is about developing relationships and trust with other governments, indigenous peoples, local communities, and stakeholders. The work involved in establishing new sites includes undertaking socio-economic and ecological traditional knowledge studies; consulting stakeholders, communities, and the public; engaging and consulting indigenous peoples; and, defining boundaries and negotiating agreements with provincial and territorial governments as well as indigenous governments.

A critical part of our establishment process is the level of engagement with indigenous peoples. The use of co-operative management boards with indigenous organizations to manage NMCAs is a meaningful way for indigenous peoples to continue stewardship, in partnership with Parks Canada, over their traditionally used areas on their own terms, including directing how we use traditional knowledge to inform decisions.

There are several common elements to the co-operative management boards: they seek to establish a collaborative relationship; land claim agreements make the establishment of such boards mandatory; indigenous organizations nominate their own representatives; the government provides financial and secretariat support; the boards increasingly work on a consensus basis, in that disputes are worked out by the board; and, each plays an important role in the development of a management plan.

#### **●** (0925)

#### [Translation]

All told, Parks Canada works with more than 300 indigenous communities. These strong local relationships are essential to delivering our mandate, and they contribute to the process of reconciliation between Canada and indigenous people. These relationships are founded on a shared vision that protecting land and waters is the foundation for indigenous peoples to maintain cultural continuity with their traditional lands and waters and is essential to the well-being of us all.

#### [English]

This past August, the Governments of Canada and Nunavut and the Qikiqtani Inuit Association signed an MOU—a memorandum of understanding—committing the three parties to the protection of Tallurutiup Imanga/Lancaster Sound, as a national marine conservation area. It confirmed: a boundary of 109,000 square kilometres, making this the largest protected area in Canada; interim protection from any future hydrocarbon exploration or development, including seismic, for the area; negotiation of an Inuit impact and benefit agreement as required under the Nunavut Land Claims Agreement, which would commence with a goal of completing negotiation by March 2019; and, development of an interim management plan with public consultation.

Reaching an agreement on a boundary for an NMCA in Lancaster Sound was made possible for several reasons: the government and Inuit collaborated through a feasibility assessment process, including consultation, arriving at a consensus decision on the boundary; the boundary was determined through the use of western science and traditional knowledge as provided by residents of five communities; participants viewed Lancaster Sound not just as one of the planet's most important ecosystems, but as a cultural seascape that has sustained Inuit for thousands of years; Shell Canada Limited voluntarily donated its 30 hydrocarbon permits covering 8,600 square kilometres, in the hope that this would result in the establishment of the NMCA; and, Canada and Inuit have agreed to develop a partnership through an NMCA that will ensure environmental, social, and economic benefits flow to Inuit.

In conclusion, from Parks Canada's perspective, the key attributes to success in establishing and managing protected areas are political leadership and commitment; public and stakeholder support; funding; engagement, collaboration, and ongoing consultation with indigenous peoples while respecting modern and historic treaties; utilizing science and traditional knowledge to inform decisions; and finally, recognizing that the work we undertake is to contribute to the overall conservation and health of our planet.

Thank you.

The Chair: Thank you, Mr. Prosper. We appreciate that, of course, and we're now going to go to questions in our first round.

Mr. Hardie, please, for seven minutes.

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

We were interested in having Parks Canada here, because in a tour we did up north we heard simply all sorts of good things about the way you have worked in those communities.

I want to give you another moment to give us an idea of the strategy, the approach, and the selection of staff who work with the local communities in order to get a better understanding of why they speak so highly of your people and your process.

• (0930)

Mr. Rob Prosper: Thank you for the question. I'll start, perhaps, and Kevin may want to dive in.

I think there are a couple of things.

One is that in the NMCAs and the national parks that we create across the country, there's not a square inch of land or water that is not in some way the traditionally used lands and waters of indigenous people. When we endeavour to create these places, it provides opportunities for indigenous people to continue to exercise their traditional activities in these places, so in a way what they do is that they help to protect traditional territories for their future generations and their future use and, as I said in my opening remarks, for cultural continuity.

I think the second thing is just a matter of geography. There's a lot of government departments and so on that have decentralized organizations, as Parks Canada does, but very few are as decentralized as we are. When we're in the north, we're not just in Yellowknife, Whitehorse, and Iqaluit; we're in Sachs Harbour, Paulatuk, and Old Crow. We live and work in communities. We build personal relationships with communities. I think what we do is that we turn those personal relationships into institutional relationships. I think that's why the community would likely speak highly of our work there.

**Mr. Ken Hardie:** In terms of the national marine conservation areas, we have them and we're establishing them, but the average person looking at this from high above would ask whether we are getting all tangled up with each other. Are we duplicating efforts here? In what way do your process and your network differ from MPAs?

Mr. Rob Prosper: Thank you for the question.

You likely have had this raised earlier—I'm not sure—but there is a federal marine protected areas strategy that helps to define the unique roles that the different types of marine conserved areas play as a collective.

A couple of things, I'd say, are unique to national marine conservation areas. One is in establishment. As I said in my earlier remarks, oil and gas and those types of activities are prohibited.

The other unique feature is that, not unlike national parks, visitation and giving Canadians opportunities to visit and experience these places is a key part of the mandate. They aren't simply there to draw a line on a map and, for protection, prevent activities; they are there as well to actively encourage Canadians to experience their natural heritage.

**Mr. Ken Hardie:** One of the major differences we noticed in looking at what was a marine protected area up in the north and at similar areas in other parts of the country is that up in the north there doesn't appear to be a lot of competition for use, whereas if you look off the west coast or the east coast, there are competing interests that will be putting pressure on a given area to permit certain activities.

In your network, do you face similar competing pressures, such as commercial fisheries, for instance? You mentioned resource extraction, which isn't allowed, but do you find yourself having to thread the needle in terms of coming up with something that represents a good consensus across a band of interests?

**Mr. Rob Prosper:** The authorities for the management of fisheries and the management of shipping remain with the ministers responsible, the Minister of Fisheries, Oceans and the Coast Guard, and the Minister of Transport, so those activities can continue.

That said, any time there's conversation on a protected area, there's a lot of interest from industry and other stakeholders about what exactly that means for them. When we're in the feasibility assessment process, we do a significant amount of consultation with industry to help clarify what it does or doesn't mean for industry.

Perhaps, Kevin, you could add to that.

Mr. Kevin McNamee (Director, Protected Areas Establishment Branch, Parks Canada Agency): To continue, I think an example would be the Saguenay—Saint-Laurent Marine Park, which we jointly administer with the Government of Quebec. It's a very critical area for beluga whales, but at the same time it's a very critical marine transportation corridor. There's a lot of effort and time that both governments have put into working with industry to come up with a sort of voluntary code as to how they use that: avoiding certain areas, slowing down speeds, and things like that. These are the kinds of things that we're going to be looking at in Lancaster Sound, because the Inuit have identified some important traditional corridors.

Also, in our proposal on the southern Strait of Georgia between Vancouver and Victoria, which is very heavily used, part of the issue there is that we have some organizations that want us to almost solve every pollution/environmental issue that exists through our national marine conservation area proposal. We have 19 first nations, and each one has different views and aspects. Also, then we have some important and critical international transportation corridors; fishing is not really an issue there.

Through consultation and meeting with stakeholders—for example, in Gwaii Haanas we must have had about 64 interactions with the fishing industry there—it's about trying to work through those processes, which of course creates a tension between trying to work with people to build the trust and identify and resolve issues, while trying to hit the 5% and 10% targets by 2017 and 2020. That's part of the tension we have to manage.

● (0935)

**The Chair:** Thank you, Mr. Hardie, I appreciate it. Thank you to our witnesses.

Mr. Doherty, please, for seven minutes.

**Mr. Todd Doherty:** Thank you, Mr. Chair, and thank you to our guests today.

Mr. McNamee, you mentioned something in your final comments. How much feedback have you had in terms of your own department, internal and external, on the government's speeding up of the process in terms of reaching the 5% by the end of 2017? How tough has that been? We've heard before that it presents a bit of a problem but "we'll work through it". How hard has it been to be able to complete your consultations effectively and appropriately?

**Mr. Kevin McNamee:** It's a great question. In part, we've benefited from the fact that we had a number of processes already in play: Lancaster Sound, the southern Strait of Georgia, and the îles de la Madeleine. As we've seen in Lancaster, that's going to contribute to the target.

This point may have been made to the committee before, but I think we have benefited immensely from the fact that the targets were publicly placed into the mandate letters of both our minister, the Minister of Environment and Climate Change, as well as the Minister of Fisheries and Oceans.

Just by doing that, every federal department and the external stakeholders knew that this was the mandate that ministers had to deliver. In our experience on Lancaster Sound, we had tremendous collaboration with, for example, the Department of Natural Resources Canada in developing the mineral and energy resource assessment.

We will take the necessary time to build the collaborative relationships with indigenous people. That's fundamental to our process. What we have done is look at whether there are some ways to accelerate certain things. Also, is there a way to count at a particular point in our process? In Lancaster Sound, what we did was to negotiate a memorandum of understanding so that the three critical parties arrived at a consensus that they put into a memorandum of understanding, which said that this is the boundary, these are the next steps, interim protection will apply to the area, so in essence it's protected, and the boundary is agreed to, and now let's work out the arrangements with Inuit.

Those are some of the ways.

Mr. Todd Doherty: That's a great answer.

There are questions have arisen from our on-the-ground site visits and from testimony here. It is one thing to announce the target of 5% by 2017 and 10% by 2020. The trouble or the difficulty has been in communicating what the goals and objectives are of our MPAs, our national marine protected areas. Has that presented a problem to you in terms of what is the goal of this MPA?

You've said that you've identified some on the west coast already. What is it that we're protecting? What are the goals and objectives that we're protecting there? Has that been communicated to the stakeholders as well?

• (0940)

**Mr. Kevin McNamee:** That's another great question. We have 46 national parks. We've been creating national parks since 1885, so when we meet with people, with stakeholders, whatever, people have a sense of what a national park is about. Now we have everything

from Banff to Qausuittuq. We have very different types of parks. They're managed differently and have different types of uses.

Both for Fisheries and Oceans Canada and ourselves, I think that while our programs have been around for several decades, our ability to realize new areas on the water and to have people see how they're run and how they operate.... They're all fairly new, so it has been a challenge to communicate that. But by having accelerated the process and getting more on the water, we can now point to different types of marine protected areas and how they're managed.

We have many people that like to go out to Gwaii Haanas to see how that area is managed and to work together with the Haida.

**Mr. Todd Doherty:** You mentioned in your testimony the federal marine protection strategy. Is that a document?

**Mr. Kevin McNamee:** We'll table that. We'll get copies of that to the committee.

Mr. Todd Doherty: Thank you.

Who determines how much and what is being protected?

**Mr. Kevin McNamee:** Again, I think, in terms of how much per site, it depends on what it is we are trying to protect. In Lancaster Sound, there's a very important migratory area.

It depends on the physical features that drive that ecosystem. We look at the physiography, the subsurface, and things like that, but ultimately the boundary is determined by working with other levels of government and working with indigenous people.

Traditional knowledge was a really important factor in Lancaster Sound, in that western science showed us an area of about 44,000 square kilometres, and when you brought in traditional knowledge, we were up to 109,000 square kilometres.

On top of that, it's about looking at potential oil and gas, important fisheries areas, and use and things like that. The approach is done on a site-by-site basis.

**Mr. Todd Doherty:** You mentioned that consultation with our indigenous peoples is paramount. What are your comments around indigenous politicians who have come forward and have said that there has been no consultation—or not enough in terms of what they've seen—and that the economic opportunities have not been considered in terms of those indigenous populations?

Mr. Rob Prosper: Perhaps you could clarify the question in which areas—

Mr. Todd Doherty: Well, both in Nunavut and on the Pacific coast.

Mr. Kevin McNamee: I think that rather than comment on a statement that may have been applied generally, our sense in Lancaster Sound, for example, which is our one national marine conservation area project within Nunavut, is that we had the support of the designated Inuit organization, the Qikiqtani Inuit Association. I don't mean to speak for them, but in signing the memorandum of understanding and agreeing to move forward, on that particular project we have support.

I think it depends on the context in which those statements may have been made.

It's the same thing with the Haida in Gwaii Haanas. I can only comment that with respect to our particular sites we appear to have their support and trust.

If there are issues, we have a management board in place to work out those issues. The management boards work in such a way that neither party will go directly to the minister and say that they have an issue. The two have to agree to bring something to the minister. In that way, they have to work out those issues.

● (0945)

Mr. Todd Doherty: That's great.

The Chair: Thank you, Mr. Doherty. We appreciate it.

Mr. Johns, please, for seven minutes.

Mr. Gord Johns: Thank you, Chair, and thank you to the witnesses for being here.

The Canada National Parks Act sets a high bar for maintaining ecological integrity in all national parks. Marine protected areas, however, lack clear minimum protection standards that terrestrial parks benefit from, so here's my question. Would the following minimum protection standards be suitable for marine protected areas, such as, for example, prohibitions on oil, gas, and mineral exploration and development, wind farms and tidal power development, open net aquaculture, bottom trawling, and ocean waste dumping?

Mr. Prosper, would you speak to that?

**Mr. Rob Prosper:** Perhaps where I start is that marine conservation is managed differently than national parks are, and that's reflected in the legislation. It's clear in the legislation that the goal is to have sustainable ecosystems. That doesn't mean that protection is taking a back seat. I think what it means is that the goal is still to maintain functioning ecosystems but to recognize that these areas are also important for other activities. The preamble is quite clear in terms of the degree to which they contribute to the sustainability of coastal communities.

They are what they are. They're a slightly different beast that contributes to biodiversity and maintains a level of protection that we feel is appropriate, but it does contemplate other types of use.

**Mr. Gord Johns:** Of particular interest, mining, oil, and gas exploration are banned from terrestrial parks to preserve ecological integrity.

Mr. Rob Prosper: Right.

**Mr. Gord Johns:** Are these activities compatible with the goal to protect marine biodiversity in marine protected areas?

**Mr. Rob Prosper:** The act is clear as well on that. Oil, gas, and mineral exploration are prohibited in marine conservation areas.

**Mr. Gord Johns:** In terms of establishing the marine protected areas, what role does the precautionary principle play in Parks Canada's decision-making process as it pertains to establishing national marine conservation areas and terrestrial national parks?

Mr. Rob Prosper: That's an excellent question.

It's a fairly common approach that one has to take, particularly when you're establishing.... Marine conservation areas are developed through a representativity, so what we've done is identify the 29

marine ecological regions. Our goal is to have a marine conservation area represent each one of those areas.

When you take that approach, as much as we do a significant amount of research in terms of understanding what locations are best from an ecosystem perspective, the bottom line is that there are a lot of unknowns. The precautionary principle is a fairly common way to manage areas, knowing that you are not going to understand all of the functioning of the ecosystems and that, even in the absence of clear scientific certainty, at times it's important to make decisions in those areas that favour conservation on a precautionary basis.

**Mr. Gord Johns:** Mr. McNamee cited how local and traditional indigenous knowledge can contribute to accumulating knowledge about local environments. He cited Lancaster Sound. Can you cite some other models as examples?

Mr. Kevin McNamee: I think that if I were to take a broader-stroke approach in both our national parks and our national marine conservation areas, some of the areas that either have been established or are proposed have actually originated from indigenous governments and organizations. Tuktut Nogait National Park in the Inuvialuit settlement region was first proposed by the community of Paulatuk. There, you had a happy marriage between their needs to protect the calving grounds of the caribou herd and our need to represent an area and protect the wildlife population, so we now have a national park there.

Similarly, in James Bay, the Cree Nation Government approached us a number of years ago in asking if we would be interested in looking at a national marine conservation area in eastern James Bay. We are in discussions with the Cree to figure out how we could launch a feasibility assessment. Under the marine land claim agreement for the Eeyou marine region, there are provisions for a national marine conservation area and a requirement for an impact and benefit agreement should we realize that.

When you look at our process, you will see that we identify areas in collaboration with indigenous governments, organizations, and communities. We do the feasibility assessments. We reach a joint decision on the boundary, and we negotiate the necessary agreements.

**●** (0950)

**Mr. Gord Johns:** You talked about the impact agreement. How much weight is currently given to local and traditional indigenous knowledge within the MPA process? Does it vary depending on where the MPA is located? You've talked about the agreements that you're moving forward with.

Mr. Kevin McNamee: Again, I think our experience is relatively new, but it's very clear that in Gwaii Haanas, the traditional knowledge of the Haida, and, in Lancaster Sound, the traditional knowledge of the Inuit—in particular, the five Inuit communities that use this area—are very important.

Part of what we try to do, I think, is that we don't try to squeeze western science and traditional knowledge together. What we try to do is treat them.... Each one of them is based on different information and different backgrounds, so they provide you with a different picture. What we found exciting in Lancaster Sound was when we overlaid them. Don't try to cram them together, because a lot of times you'll hear scientists say they don't understand how traditional knowledge fits into the science. It doesn't necessarily fit in; it's a different way of looking at the land.

You have to look at it and say that it's not just a natural landscape. This is a cultural landscape that's been a homeland to people for thousands of years, so recognize their knowledge systems—how they develop that knowledge and how they apply that knowledge—to see what kind of picture that creates of the area you're trying to protect and where that ultimately does lead to a boundary. Of course, in dealing with indigenous people, they really hate the idea of boundaries and drawing lines on the map, because it's what's been done to them with treaties and everything else, but we work that out together.

Mr. Gord Johns: Can you expand on how-

The Chair: Mr. Johns, I'm sorry. I have to move along. Thank you.

Mr. Kevin McNamee: I'm sorry. I guess my answer was too long.

The Chair: Ms. Jordan, please.

Mrs. Bernadette Jordan (South Shore—St. Margarets, Lib.): Thank you, Mr. Chair, and thank you to our witnesses for appearing today.

I want to go right back to the start. You said that you have four national marine conservation areas, of which I believe the Haddock Box off Nova Scotia is one.

Mr. Kevin McNamee: Is that a region?

**Mrs. Bernadette Jordan:** I'm trying to think of what the real name is. It's a conservation area, but is it under Parks Canada?

Mr. Kevin McNamee: Off the west coast?

Mrs. Bernadette Jordan: No, no. It's off Nova Scotia.

**Mr. Kevin McNamee:** Off the east...? No. The only thing we have off—

Mrs. Bernadette Jordan: Western/Emerald Banks?

Mr. Kevin McNamee: No.

Mrs. Bernadette Jordan: I thought it was. I'm sorry.

My question is, then, how does Parks Canada, in co-operation with DFO, I guess, determine what is going to fall under Parks Canada and what's going to fall under an MPA? It's obviously a marine area that you're looking at, which is now under Parks Canada, so how come you have water too? I guess that's my question.

Mr. Rob Prosper: Perhaps I'll start. Thank you for the question.

I'll turn back—and you'll get copies—to the federal marine protected areas strategy. It helps to clarify the different roles that the different types of marine protection instruments provide.

As I mentioned previously, Parks Canada looks at the 29 marine regions with the intent of representing each of those regions with as good a marine conservation area as possible, one that's really representative of that area and captures the key unique features of those areas. Other marine protected areas—not to speak for the other agencies—may be looking at a specific highly productive area, for example, for the purpose of protecting future fish stocks.

It's driven primarily by purpose. The purposes of Oceans Act marine protected areas are in some ways different from the purpose of national marine conservation areas. NMCAs are about representativity, and they're also about identifying areas where they can contribute to the sustainability of coastal communities and lend themselves, to a degree, to having Canadians have opportunities to visit and experience them.

● (0955)

**Mrs. Bernadette Jordan:** Who enforces the marine conservation areas? Who looks after enforcement to make sure that nothing is going on there that's not supposed to be? Does it fall under Parks Canada or DFO?

**Mr. Rob Prosper:** It falls to Parks Canada. We have just under 100 park wardens. You would probably recognize the uniform of park wardens, with their Stetsons. The wardens have been around a long time. They are our dedicated law enforcement group. They're an armed enforcement group, and they work in all our national parks and national marine conservation areas.

**Mr. Kevin McNamee:** I would add that it may not be specifically in the area of enforcement, but an emerging part of our program is working again with indigenous communities in terms of a guardian-like approach that we have on Gwaii Haanas. They would be there to enforce traditional laws and to work with people: visitors, Parks Canada, or whatever.

We'll be exploring that for Lancaster Sound, obviously, which is a tremendously huge area. How are we are going to work with the various communities to monitor and keep an eye on how the area is being used?

Mrs. Bernadette Jordan: Where are the four national marine conservation areas?

Mr. Kevin McNamee: We used to call them "national marine parks". The first one is adjacent to the Bruce Peninsula. We moved to the term "national marine conservation area" because we didn't want people to think that all we were doing was dragging a national park offshore, given that commercial fishing and things such as that can continue under the act.

The second one is the Saguenay—Saint-Laurent Marine Park, which is under separate federal and provincial legislation, given that Canada has jurisdiction for the water column and Quebec has jurisdiction for the seabed. It's a collaboratively managed area.

The third one is the first one that came out under the Canada National Marine Conservation Areas Act. It is the Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site. Again, exemplifying how we do things collaboratively, they declared it to be a Haida heritage site before it was a marine area.

Our fourth one is our largest. It's on Lake Superior. Part of our systems plan acknowledges that there is a connection between these large bodies of water in the Great Lakes and the marine environment, and those count towards the Aichi target of the terrestrial 17%.

Lancaster falls in as our fifth.

**Mrs. Bernadette Jordan:** I'm sorry. In my first question, I thought that the Western/Emerald Banks Conservation Area off the coast of Nova Scotia was under Parks Canada, but it's not. It's under DEO

Mr. Kevin McNamee: Well, we'll take a look at it.

Voices: Oh, oh!

**Mrs. Bernadette Jordan:** How long have you been working on the Lancaster Sound project?

**Mr. Kevin McNamee:** It depends on who you talk to. Going back to the late 1970s or early 1980s, Lancaster Sound has inspired people to conserve it, with green papers, white papers, and all kinds of proposals.

We got going on a national marine conservation area proposal really aggressively probably in the late 1970s or early 1980s. It was put in abeyance because Inuit wanted to focus on the settlement of their land claim agreement, and then they wanted to focus on the settlement of Inuit impact and benefit agreements for national parks.

Things really kicked off, though, with the signing of an MOU with the Inuit and the Nunavut government in 2009. Our feasibility assessment really got going in late 2010. We tend to look at it and say that the really heavy lifting that got us there took us seven years, from 2010 to 2017.

Mrs. Bernadette Jordan: It took seven years.

Mr. Kevin McNamee: We never have a short answer when people ask us how long it takes.

**Mrs. Bernadette Jordan:** From your perspective, then, depending on what it is you want to protect or the communities that you have to deal with, it could take longer or it could take less time. Is that a fair assessment?

**•** (1000)

Mr. Rob Prosper: I think it's a very fair assessment.

The numbers and the diversity of stakeholders often dictate the amount of time that it takes to effectively consult and explain what the intentions are and to respond to the challenges that may be raised along the way. Certainly, in an area where you have one identified indigenous group versus areas where you may have many, or places where there's a limited number of stakeholders versus places where there are many tenures and many stakeholders, the latter is going to take more time.

The Chair: Thank you, Ms. Jordan. I appreciate it.

That brings us to the end of our witness—

Mr. Arnold, go ahead.

**Mr. Mel Arnold (North Okanagan—Shuswap, CPC):** Mr. Chair, I believe we have only one witness in the next hour.

The Chair: Yes.

**Mr. Mel Arnold:** Would it be possible to extend the time here for another five-minute round? These are very knowledgeable witnesses

**The Chair:** Yes, I was going to.... I think it's a good point. Is there any dissension amongst the ranks about that? Is everybody okay?

Then I would ask for the indulgence of the committee: if you have a very quick, pointed question, please go ahead.

I'm not going to go to the normal order.

Mr. Arnold, if you have a quick question, go right ahead, please.

Mr. Mel Arnold: Thank you, Mr. Chair, and thank you to the committee for its indulgence in extending the time.

What direction has your department been given in reaching the targets? Were you given a quota of areas to protect? Were you given certain criteria or certain attributes to protect? What direction have you actually been given?

**Mr. Rob Prosper:** As Mr. McNamee indicated, it was present in our minister's mandate letter to contribute to reaching the 10% target by 2020 and the 5% target by 2017. Again, I would say that it's driven by opportunity. We work with the other departments that are engaged in contributing to trying to meet that target.

There wasn't a specific delegation of how Parks needs to come up with this amount and DFO has to come up with a certain amount. It was about what opportunities were on the table, what things we could move quickly on, and what things were already in midprocess, and then focusing on those opportunities. Of course, for us, Lancaster was in mid-process and was the one that we put attention on. We literally sped up the process to have that contribute.

The Chair: Go ahead, Mr. McNamee, very quickly.

**Mr. Kevin McNamee:** We could provide the committee our systems plan map that divides Canada into 29 marine regions. That's the direction Parliament gave us through the act: to focus on representative areas within those regions. We'll give you a map and a copy of the systems plan. That'll help you.

**The Chair:** We appreciate that, Mr. McNamee. Thank you, and in both languages, please, if that is available.

Mr. Kevin McNamee: Yes, sir.

The Chair: Thank you.

Mr. Morrissey, very quickly, then Mr. Doherty, and I'm going to call it quits after that.

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

I want to follow up on the comments of my colleague Mr. Hardie, because a lot of the testimony we heard up north was that the relationship with Parks Canada was very good. You stated that what helped was allowing the traditional uses to occur in your areas.

One of the areas on the east coast where we're getting push-back and concern from traditional users, which are the fishers, is that they're afraid that their traditional uses, their areas, will not be allowed. Could you comment? Has that been a good experience or is it something we should concern ourselves with?

**Mr. Rob Prosper:** The first thing I would say is that the Minister of Fisheries and Oceans retains authority for the management of commercial fishing in marine conservation areas, so it's a bit more a question for—

**Mr. Robert Morrissey:** But it has not negatively impacted on your NMCAs to allow traditional use in a managed environment?

Mr. Rob Prosper: That's right, and I think there's likely a distinction between traditional use and commercial use. In terms of traditional use, these are well-established rights that we recognize in the establishment. In the north, for example, it's quite clearly stated in the land claim agreement that the criteria and provisions that direct the establishment of those areas require a continuation of traditional activity.

**●** (1005)

The Chair: Thank you, Mr. Morrissey.

Mr. Doherty, very quickly, please.

**Mr. Todd Doherty:** I'm going to switch up my question and follow up on Mr. Morrissey's question.

We have first nations and non-first nations who have lived side by side for generations. I believe Mr. Morrissey's comment was probably in regard to non-first nations who have been (a) making a living and (b) sustaining their families off the same traditional waters, so my question to you would be who takes precedence, non-first nations or first nations if...?

I'll just throw that out there.

Mr. Rob Prosper: I'll probably repeat myself here, but the management of commercial fishing—

**Mr. Todd Doherty:** I'm not talking commercial.... I'm talking about how you have a non-first nation and you have a first nation who have lived side by side in the same area and have fished the same waters for generations. What takes precedence?

Mr. Rob Prosper: Do you want to try that, Kevin?

Mr. Kevin McNamee: We're well acquainted with those issues coming up, but first and foremost, as an arm of the federal government, we have an obligation to follow what may be in land claim agreements or understanding what's in historic treaties. We don't come to our proposals and go "fishing allowed" or "no fishing allowed". Our act is clear: fishing continues in a national marine conservation area.

Parliament has given us a directive in our NMCAs to identify special protection zones, or in other words, no-take zones. That is done as part of our management planning process, which involves consultation. In order to put those kinds of provisions into effect—a zone that does not allow fishing—we must have the support of the Minister of Fisheries and Oceans.

We try to avoid getting into yes-or-no questions. It depends on the site, the issue, and the use, and, as you pointed out, those historic

things. We don't draw that line when we go into our proposals, and we have not done that yet.

The Chair: Thank you, Mr. McNamee.

Very quickly, Mr. Prosper.

**Mr. Rob Prosper:** I was just going to say, to be clear, that our minister does not have unilateral authority to make those decisions made in co-operation with the Minister of Fisheries—

The Chair: Thank you, Mr. Prosper.

Thank you, Mr. McNamee. I really appreciate it.

Sorry, folks, we have a witness waiting. We want to thank you for coming here today. We'd also like to thank all your colleagues at Parks Canada for helping us out on this.

We're going to break. Colleagues, literally one minute is all I can spare for a break. Thank you.

• (1005) (Pause)

**●** (1010)

**The Chair:** Colleagues, we are back. We don't have a lot of time. In the last session we extended by a few minutes. I don't think we have that luxury now. I could probably do five minutes maximum. Instead of going to 10:45, let's say I go to 10:50. Can I have unanimous consent to extend by five minutes?

Some hon. members: Agreed.

**The Chair:** Joining us by video conference we have, from Ocean Networks Canada, Dr. Kim Juniper, chief scientist.

Dr. Juniper, thank you for joining us. You have up to 10 minutes for your opening statement. You can use as much time as you wish, but I have to cut you off at 10 minutes. After that, we'll go to a round of questioning from our members of Parliament.

Please go ahead.

**Dr. Kim Juniper (Chief Scientist, Ocean Networks Canada):** Thank you very much. I probably won't take all of the 10 minutes.

I'd like to begin by providing you a bit of background on who I am and wherein lies my expertise. This might help people frame their questions later.

I'm an academic. I've worked in research in deep-sea ecology since 1983, so it's been quite a while. In 1999, along with two other academic researchers, we drafted the candidacy proposal for Canada's first marine protected area, the Endeavour hydrothermal vents, an area of deep-sea hot springs off the west coast of Vancouver Island.

For the last seven years, I've been a member of the leadership of the Canadian Healthy Oceans Network, which is a strategic network partnership between academia and DFO that has been working, among other things, on developing criteria for the selection and networking of marine protected areas. I am also a member of the deep ocean stewardship initiative, which is an international ad hoc organization of researchers that supports the paired engagement of science and policy-making in efforts to protect the deep ocean.

In my capacity as chief scientist with Ocean Networks Canada, I've worked closely with DFO in developing a monitoring capacity for the very remote and very deep Endeavour hydrothermal vents marine protected area.

The focus of my opening statement here will be the criteria and process for both establishing and, most important, maintaining marine protected areas so that the intended benefits can be achieved. In particular, I'm referring to benefits that are related to the conservation of biodiversity and the protection of ecosystem services, those services that are provided to society by intact marine ecosystems.

I'm primarily motivated by recent global trends to create very large MPAs in remote areas as most states look to fulfilling their obligations to the UN Convention on Biological Diversity and to achieving the 10% EEZ MPA goal by 2020. This creation of both offshore and remote MPAs is in some ways the easy way out.

I listened earlier to the Parks Canada description of how, when you have few stakeholders, it's sometimes easier and more expeditious to avoid lengthy and difficult stakeholder interactions related to fisheries, coastal development, and land claims, but I think that in this context it's really important to point out that the most diverse, most productive, and primarily the most threatened marine ecosystems are in Canada's Pacific and Atlantic coastal zones, not way offshore and in remote Arctic waters. That's not where the immediate need for protection lies. At the same time, these offshore and remote Arctic waters are not representative of coastal marine ecosystems in what I will refer to as "southern coastal Canada".

That was the first point I wanted to make. It's important to protect these areas offshore, but at the same time, let's not do this and then not worry about things that are more difficult to achieve, where we have much of our biodiversity and much of the most threatened ecosystems.

Let's assume anyway that Canada is going to follow, to some extent, this global trend and create future MPAs in these remote regions. How are we going to go about monitoring these MPAs and know that we're actually achieving our conservation objectives?

My experience in working with DFO on monitoring of the Endeavour MPA has been really rewarding, but it has also made me aware that DFO does not have the capacity to monitor our existing MPA network on a regular basis without help from academia. We've had a very successful partnership, but this will need to continue as we go forward.

This is particularly important for remote deep-sea MPAs, where we essentially require robotic submersibles to survey and to collect samples. In many ways, much of the biodiversity we're trying to protect with these MPAs lies on the sea floor itself, not in the water column, and this is, in many ways, in deep water sites, the most inaccessible.

**●** (1015)

I really strongly recommend, therefore, that any increase in the number and size of marine protected areas in Canada be accompanied by a proportional increase in monitoring capacity. I can provide some specific examples for later questions on why we need to be monitoring, but I wanted to make this initial point. Also, I think the partnership that's been developing between DFO and academic researchers for MPA network research and developing and monitoring is one example of how both the costs and the responsibilities for this really important conservation tool can be shared between government and other stakeholders.

These are the two points I wanted to make. I'm happy to take questions.

[Translation]

I can answer them in both official languages.

The Chair: Thank you, Mr. Juniper.

[English]

I appreciate your comments very much.

We're now going to go to questions. We're starting out with Mr. Hardie once again.

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

Thank you, Mr. Juniper. On the setting of the boundaries for the MPAs, some of the things we've heard about in the past are climate change, the arrival of previously unseen species, etc. I mean, is this a moving target, really?

**Dr. Kim Juniper:** Yes, exactly. That is one of the reasons why it's critically important to do regular monitoring of MPAs. When we set up these MPAs, we had specific conservation objectives, and yet, as you say, we're living in a changing world. The oceans are changing and species ranges are moving mainly north as the climate warms.

We need to be monitoring this to be make sure our boundaries are in the right place so that the species we want to protect remain within the boundaries. That's a real challenge. It's not going to happen in a dramatic "one year to the next" fashion, but it is something that we need to be keeping track of so we can make decisions in the future when we still have within the boundaries of our MPAs the species we intend to conserve.

**Mr. Ken Hardie:** In that case, shouldn't this be like hockey? Shouldn't we be planning these MPAs for where the fish are going to be? Like the puck...?

Voices: Oh, oh!

**Dr. Kim Juniper:** If we could predict that, I think a lot of people both in fisheries management and in the fisheries themselves would be very happy, but that's not really possible.

Mr. Ken Hardie: Well, you scientists tell us that you know it all.

**Dr. Kim Juniper:** We know a lot, and we know what we don't know.

Mr. Ken Hardie: I know: it's a deep ocean out there.

We just had some folks in here from Parks Canada. It was pointed out to us, especially in the northern portion of our study, that they were doing a very good job of incorporating traditional knowledge along with science. They noted that there's a distinction between trying to fuse traditional knowledge with science or using traditional knowledge as an overlay with science. What are your views on those two ways of proceeding?

**Dr. Kim Juniper:** Certainly, particularly if we think about zoning within MPAs that are close to the coastal zone, there I think we have to take advantage of local traditional knowledge to understand, for example, what are important feeding areas for some of the organisms we're trying to protect. I'm thinking particularly of large marine mammals. There, I think traditional knowledge can provide guidance to scientists.

I have the personal experience of having spent 10 days trying to measure ocean currents in an area where all I really had to do, as I discovered on the 11th day, was talk to one of the locals as to the cold water comes in here and then goes around and goes over there.... My instruments only partially answered that question.

So yes, traditional knowledge is vitally important, both for determining boundaries and for making decisions on zoning within these MPAs, particularly if we're trying to protect traditional use of some of the living resources.

**●** (1020)

**Mr. Ken Hardie:** About a year and a half ago, the government, which was brand new at the time, announced a fairly substantial lift in funding for science. Can you comment at all on what impacts you've seen from that investment so far?

**Dr. Kim Juniper:** What I've seen so far is a change of mood at DFO among my DFO colleagues. We are collaborating again and doing research again, and we are mutually excited about how science can contribute to protection of our oceans.

**Mr. Ken Hardie:** You've mentioned that as we increase the number of MPAs we need to increase the monitoring capacity. We've heard that both Parks Canada and DFO provide monitoring and enforcement. We've also heard from some indigenous communities that the guardian program can make a contribution there as well.

Overall, in order of magnitude, especially in looking at side armbearing enforcement officers and first nations guardians, how much more of this do we need, do you think?

**Dr. Kim Juniper:** I think we need to make a distinction between enforcement and monitoring.

By monitoring, I'm referring to actually monitoring the ecosystems that are present in the MPAs to make sure that we are achieving our conservation objectives. This can involve doing surveys of the abundance of organisms and their general health.

The enforcement part is something else, where we actually have to manage territorial intrusions into the protected area or manage activities that are not allowed within certain zones. I can't really comment on the enforcement part of this.

What I'm trying to make a point about here is the importance of monitoring the ecosystem itself. If something goes wrong, or if we see that things are going in a direction that we don't wish them to, then we need to look at whether this is a result of natural change that we don't understand at all or a result of uncontrolled human intervention.

If I may, I'll make a second point about the critical importance of monitoring to establish a baseline so that we can understand how quickly things can change naturally within a marine protected area. Before we come along a couple of years later and say that "the area wasn't like this two years ago, so who's to blame?", we really need to get a grasp of the range of natural change in these MPAs and within these ecosystems, and what is outside of what we would normally expect from natural change. We don't really have that baseline in many of these cases.

Closer to the coast, I think we can make use of traditional knowledge for that, but as we move offshore, where we know very little, there we have to use other, more sophisticated tools, mainly technology.

**Mr. Ken Hardie:** I have one more very quick question. You're taking a whole ecosystem approach, then, and not, as we've seen in the past, just focusing on commercially useful stocks?

**Dr. Kim Juniper:** I'm taking the approach of conserving biodiversity, which is Canada's obligation under the Convention on Biological Diversity, so that's all species and also the protection of the services that an intact ecosystem provides to society.

Mr. Ken Hardie: Thank you.

The Chair: Thank you, Mr. Hardie.

Mr. Doherty, please, for seven minutes.

Mr. Todd Doherty: I'm deferring my questions to Mr. Arnold.

The Chair: Indeed.

Mr. Arnold, you have seven minutes.

Mr. Mel Arnold: Thank you, Mr. Chair, and thank you for appearing today, Doctor.

I'll take an excerpt out of your opening statement today, which is that the "creation of offshore and remote MPAs may be easier and more expeditious in that it avoids lengthy and difficult stakeholder interactions related to fisheries". During the past week, we were in the Maritimes and met with snow crab and lobster fishermen and so on. They were referring to a midshore area. Your statement here seems to indicate that they may not need to be consulted as directly because it's an offshore area.

• (1025)

**Dr. Kim Juniper:** No. I'm not saying that they should not be consulted. I am saying that in many cases, in the very deep water offshore, the areas where there are no fisheries of note, the consultation will tend to be rather short, because there are very limited resources there to exploit in a commercial sense. I'm not suggesting that we should not consult anyone. We shouldn't make any assumptions of that sort.

Mr. Mel Arnold: Okay. Thank you.

Another statement, for which I'll have to look up the exact wording you had here, was about the north. You said that it may not be "representative of our coastal areas", yet those are areas that we're looking at for some of these large MPAs. Can you elaborate on what your statement was referring to when you said that it doesn't represent our coastal areas?

**Dr. Kim Juniper:** Certainly. I was referring to the Pacific and Atlantic coastal areas in southern Canada, which tend to be the most biodiverse, the most productive, and the most affected by human activities. There are also important coastal areas in the Arctic, but they are not equivalent to what we find further south.

**Mr. Mel Arnold:** You refer to how "DFO does not have the capacity to monitor its existing MPA network" and say that additional funding or additional resources should be allocated with regard to the addition of increased MPA coverage. Where should that funding come from?

Dr. Kim Juniper: That's a very good question.

First of all, I wanted to make the point that DFO has some capacity to monitor the ecosystems within the MPAs, but to do this on a regular basis, particularly in the remote locations, is really challenging.

Where should funding go? I think that one example we have here is the collaboration between academia and DFO. We are working together to encourage research in marine protected areas, so research dollars are just essentially being redirected. We're not putting more money in the envelope here; rather, we are encouraging partnerships and encouraging researchers to work within MPAs and help DFO, for example, monitor the dynamics of the ecosystems within the MPAs.

**Mr. Mel Arnold:** That leads me to some of the testimony we heard last week in the Maritimes. Commercial fishermen feel that they could be active participants through what some call "citizen science", their passive observations while at sea. Do you see that as an opportunity to help monitor?

**Dr. Kim Juniper:** Absolutely. In fact, we have a citizen science program within Ocean Networks Canada called "community fishers", in which we provide instruments to fishermen who go offshore to areas that are not covered by our observing network and take regular measurements by lowering instruments to the sea floor using their fishing gear. These are automatically uploaded to our baseline.

There are a lot of different sources of information for monitoring MPAs. I don't think it needs to be strictly DFO or academic scientists who do it, but we do need to coordinate this.

Mr. Mel Arnold: Thank you.

There has been a lot of talk recently about how we have three months remaining to meet the 5% target, which means a 40% increase over what's currently protected. That's a 40% increase in the next three months, and then doubling that in the next three years. Do you think of that as an overenthusiastic target in terms of having the proper consultation, the monitoring, and the enforcement?

Mr. Todd Doherty: It's baseline, establishing a baseline.

**Dr. Kim Juniper:** I would hope that it's not overly ambitious. This is certainly the first point that I tried to make earlier. I was at the International Marine Protected Areas Congress in Chile at the

beginning of September. There, you heard time and time again that countries are rushing to meet their CBD deadlines, particularly the 2020 deadline, by creating large offshore MPAs in areas where the whole public consultation process will go more quickly because there is no existing exploitation of either marine or living resources or mineral resources.

I hope we don't do too much of this as we move ahead to try to meet these deadlines. It is important to protect these offshore areas. They are in many ways the most intact and untouched, but at the same time, as I mentioned earlier, they are not equivalent or representative of the more species-rich and productive marine ecosystems that are closer to our coasts. We need a mix of these two.

**●** (1030)

**Mr. Mel Arnold:** Getting back to the monitoring and enforcement portion of it, some of these areas that are going to be protected aren't complete no-take areas. Should or could the traditional harvesters, whether they're first nations or commercial fishermen, be enabled to do some of this enforcement?

For example, I've heard of the rockfish conservation areas in British Columbia. The commercial fishermen aren't allowed in. They're GPS-tracked and there are cameras and so on. They've actually turned on their cameras to show that they weren't fishing and went into a closed area to record and videotape non-commercial vessels that were illegally fishing inside those areas. Should those activities continue and also be part of the management and enforcement process?

**Dr. Kim Juniper:** There again, we're mixing monitoring and enforcement, but in many ways it's inevitable. We have to think about this. If we're going to allow limited take of either fish or shellfish within marine protected areas, then I think we have to be prepared to have a proportional level of monitoring and enforcement. We can't expect there to be uniformed officers with side arms everywhere, so I think we have to make use of local people who know the area to monitor both what's going on with the ecosystem and obviously what's going on with exploitation of the resources.

Mr. Mel Arnold: Thank you.

The Chair: Thank you, Mr. Arnold.

We have Mr. Johns, please, for seven minutes.

**Mr. Gord Johns:** Thank you for testifying today.

Witnesses have explained that baseline data and knowledge about local environments, near-shore habitats, and many species are often lacking. This baseline data is not only important in choosing suitable MPA sites, but also in measuring success. How can Canada improve its marine monitoring practices and funding levels?

**Dr. Kim Juniper:** This is a point that I tried to make earlier. We would all like to have more money for everything, but I think a lot can be done by using existing resources and encouraging partnerships, initially on the scientific side between DFO and the academic researchers, and also by bringing in local communities to help with some of the baseline monitoring. Citizen science is something that's really taking off. There are a lot of very interested and motivated people out there who have a lot of energy and time to devote to these things.

What we need, then, is to coordinate and do this in a systematic way so that the information they collect can be used for baseline monitoring.

**Mr. Gord Johns:** That said, what are the most significant gaps in marine scientific monitoring that we need to address?

**Dr. Kim Juniper:** The most significant gaps are in understanding year-to-year variability in the abundance of different species: how many there are this year, and how many there are the following year, and how that relates to changing weather or changing climate. What is the normal range of change we can expect that we wouldn't necessarily have to attribute to human effects, but to something in the longer term, like climate change?

**Mr. Gord Johns:** Should the establishment process for MPAs be different in areas for which there is insufficient baseline information?

**Dr. Kim Juniper:** Looking ahead to 2020, I would suggest that a precautionary approach is probably a good way to proceed, but there again, this brings in the whole monitoring thing as something that should be part of the whole process of establishing an MPA. We should have a plan for the development of baseline monitoring. We should do something of a gap analysis with regard to our understanding of "baseline" in these areas and make that part of the management plan itself to increase our understanding of the baseline.

**Mr. Gord Johns:** You've answered this, but I'm going to ask you to expand on how local and traditional knowledge can contribute to accumulating knowledge about local environments. Maybe you could speak a little more to this.

**Dr. Kim Juniper:** Certainly. I think that can help us an awful lot with making decisions on boundaries and also on take and no-take zoning within MPAs. Also, as was mentioned in discussions on earlier questions, local knowledge can be really important and can make a big contribution to monitoring. It doesn't take much to organize local people to monitor their own backyard. They have a personal investment in that.

• (1035)

**Mr. Gord Johns:** In your view, do the current criteria and process used by DFO to identify and establish MPAs ensure that the intended biodiversity conservation benefits will be achieved?

**Dr. Kim Juniper:** I think the boundaries will enclose the area that we want to protect and the species and the ecosystems that we want to protect, but , in my view, right now the selection criteria do not really ensure the long-term sustainability of these marine protected areas. We need monitoring and enforcement for that.

Mr. Gord Johns: You've talked about the precautionary principle and how it plays into Parks Canada's decision-making process. Can you speak more about that role and about how it pertains to

establishing national marine conservation areas and terrestrial national parks?

**Dr. Kim Juniper:** I think that probably the most important point to make about taking the precautionary approach to things is that even if we don't know anything at a higher level, we understand the importance of an ecosystem or an area for its representativeness of a region or for the fact that it is relatively untouched but could be disturbed in the future.

There again, we should not be limited by our knowledge of the detail of these areas before making decisions about boundaries, but at the same time, we should not be excessively using the precautionary principle just to put boxes around things.

**Mr. Gord Johns:** You've answered part of this, but I want you to expand again about how much weight is currently given to local and traditional indigenous knowledge within the MPA process, and does it vary depending on where the MPA is located?

**Dr. Kim Juniper:** I would probably defer to DFO for questions on that, because it really comes out of the public consultation process, and I think that can vary from one area and one region to the next. It's important to be inclusive, but I can't really comment on how much weight is actually given to input from indigenous communities and local communities into final decisions about where boundaries occur and how MPAs will be zoned.

Mr. Gord Johns: Okay.

The Chair: Thank you, Mr. Johns.

Ms. Jordan, please, for seven minutes.

Mrs. Bernadette Jordan: Thank you, Mr. Chair.

Thank you, Dr. Juniper, for being here. I guess this is quite early for you this morning.

I'd like to start my questions by asking you to define "offshore". What's your definition of offshore?

**Dr. Kim Juniper:** My definition of "offshore" is "beyond the edge of the continental shelf", and that means waters deeper than 200 metres.

**Mrs. Bernadette Jordan:** What about areas that have waters deeper than 200 metres that are closer to shore? There are some.

**Dr. Kim Juniper:** Yes, there are some very deep fjords and some deep holes much closer to shore.

In many ways, the offshore comment also refers to distance from exploiters of resources and distance from sources of pollution and other human disturbance. Putting this roughly at the edge of the continental shelf gets us outside of where most concentrated human activity occurs, but that doesn't protect any of the deep holes that are closer to shore. That's the point I was trying to make.

Mrs. Bernadette Jordan: I thought your comments were interesting when you said that what we need to protect is closer to inshore—but you know, in order to meet targets, we'll probably look at offshore—and that it's important to protect our coastal communities. I guess one of the challenges we're finding throughout this study is that coastal communities depend strongly on the fishery. To have a marine protected area and to protect the community don't necessarily go hand in hand, because the community relies so heavily on the fishery.

I'm wondering if you could expand a bit on how you figure an MPA is protecting a coastal community, when a coastal community relies heavily on a fishery.

**●** (1040)

Dr. Kim Juniper: Absolutely, and I think that's a very important

I think there's a third piece to this, in that it's been shown globally that the creation of marine protected areas can actually help fishery stocks increase by providing essentially no-take areas for fish to feed and to reproduce. It can, down the road, even at a scale of a few years, result in an increase in fish stocks, which will then benefit the community that is actually exploiting these stocks.

Mrs. Bernadette Jordan: I take exception to "exploiting", but okay.

If you have an area that's protected and you say it's going to increase the amount of fisheries but you're still not allowed to fish there, do you see an MPA as something that's static, then? Or do you see it as something that could possibly move to different areas? Once it's designated, is it there forever? Is there a possibility, once stocks have rebounded or increased, that it could stop being a no-take zone or maybe see a decrease in the no-take area? I'd like your opinion on that

**Dr. Kim Juniper:** A couple of points are related to that. First of all, by protecting areas for fish to reproduce, there's spillover into the surrounding areas, and there the fish can be harvested—not exploited.

Mrs. Bernadette Jordan: Thank you.

**Dr. Kim Juniper:** Second, my experience with MPA management plans, in working with DFO, is that these are made up on a rotating basis of around five years, so that during those five years we can create zoning, etc. That is then reviewed after a period of five years. Again, through monitoring, if we find that the creation of the MPA has created unexpectedly positive results, we can possibly open that area or another area for fishing for the next five years.

There again, I come back to the importance of monitoring and flexibility in the management of MPAs. This is ultimately for the benefit of all Canadians.

Mrs. Bernadette Jordan: One thing you mentioned, which we've heard a great deal about, is the lack of enforcement or the inability to enforce. It's a huge concern. We put these things in place, but then are we able to make sure they meet the initiative, the goal? We've talked a bit about the guardian program and about.... I'm wondering how you see us expanding on enforcement when there are some areas that feel so strapped now—without an MPA—for enforcement.

**Dr. Kim Juniper:** You're strictly referring to enforcement and not the monitoring piece, correct?

Mrs. Bernadette Jordan: It's strictly enforcement at this point.

**Dr. Kim Juniper:** It's strictly enforcement. Okay. This actually was the subject of a lot of discussion at the international marine protected area conference in September: how are countries with few resources going to monitor MPAs and intrusions of fishing vessels and all sorts of things into MPAs?

People are looking to technology. Particularly in the coastal zones now, they're experimenting with using drones to overfly MPAs on a regular basis and essentially videoing the area. With a drone, you can record the time and the location of any boat that comes into the area. In Australia, they've developed a smartphone app for pleasure boaters or people who do sport fishing that lets them know when they have crossed the boundary into a no-take area of an MPA: their phone starts to beep.

There are all sorts of technological, fairly inexpensive solutions for this that don't necessarily require a lot of people with uniforms and side arms in patrol boats.

Mrs. Bernadette Jordan: Thank you.

The Chair: Thank you very much for that.

Folks, we have exactly six minutes left, given our extended time. This is what we dubbed the "lightning round", as it were, so I'm going to ask you to be as quick as lightning in your questions.

Mr. Miller, I think you have one point. Please be very quick.

Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC): I do. Thank you for your indulgence.

Thank you, Mr. Juniper, for being here. I enjoyed your comments.

I'll put this into one question. You've been around MPAs for some time. Obviously, anything that gets drawn up can be improved over time as you see some flaws in it. Could you name something specific you've seen as a result of present MPAs that should have been done differently?

Second, you talked a lot about monitoring capacity. Does the process of monitoring allow for a change of direction midstream, so to speak? For example, if you see during this process that you're not doing it right, does that process allow for the change required in order to do it better?

**●** (1045)

**Dr. Kim Juniper:** If I may, I'll answer your second question first. I think that within the current management plans of DFO there is that built-in flexibility so that we can change zonation and take and notake regulations.

In parallel, there is an interest in monitoring, but what I don't see in black and white in the regulations—perhaps I'm just not familiar with this—is the acknowledgement of the fact that monitoring will help us make decisions in the future about regulatory change within MPAs in regard to changing zonation and take or no-take.

At the moment, we have this cross-fertilization between these two activities. We know that we need to change things as we go along, and we know we need to monitor, but I don't see a lot of feedback.

**The Chair:** Thank you, Dr. Kim Juniper, chief scientist at Ocean Networks Canada, for joining us today by video conference. As Ms. Jordan pointed out, thank you so very much for getting up at this ungodly hour in the morning to talk to us. We truly appreciate you accommodating us, and we thank you again for bringing your knowledge to us.

Colleagues, that ends this meeting. We'll see you on Thursday in this building. It will be our first day on Bill C-55. Our guest will be the minister, Dominic LeBlanc.

[Translation]

Thank you.

[English]

The meeting is adjourned.

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