



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

44th PARLIAMENT, 1st SESSION

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# Standing Committee on Fisheries and Oceans

EVIDENCE

**NUMBER 030**

Tuesday, June 21, 2022

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Chair: Mr. Ken McDonald





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• (1105)

[English]

**The Chair (Mr. Ken McDonald (Avalon, Lib.)):** I call the meeting to order.

Welcome to meeting number 30 of the House of Commons Standing Committee on Fisheries and Oceans. Pursuant to Standing Order 108(2) and the motion adopted on February 1, 2022, the committee is resuming its study on science at the Department of Fisheries and Oceans.

This meeting is taking place in a hybrid format pursuant to the House order of November 25, 2021. For those participating by video conference, when you are ready to speak, click on the icon to activate your microphone and please speak slowly and clearly. When you are not speaking, your microphone should be on mute. For interpretation, you have the choice at the bottom of your screen of floor, English or French, and I'll remind everyone that all comments should be addressed through the chair.

I'd now like to welcome our witnesses for today.

From the Atlantic Groundfish Council we have Kris Vascotto, executive director. From Bait Masters, we have Mark Prevost, president. Wally MacPhee, who is vice-president, is joining as we speak. From the Gulf Nova Scotia Fishermen's Coalition, we have Leonard LeBlanc, professional adviser. From Ocean Choice International, we have Carey Bonnell, vice-president, sustainability and engagement.

Can we say before we start that, if we are interrupted by a vote, we will plan to do it virtually on the phone and then when we all get it done we can continue on so that we are not so long?

**Some hon. members:** Agreed.

**The Chair:** Okay. That's perfect.

We'll begin now with Kris Vascotto from the Atlantic Groundfish Council for opening remarks.

Please go ahead for five minutes or less.

**Dr. Kris Vascotto (Executive Director, Atlantic Groundfish Council):** Thank you, Mr. Chair.

On behalf of the Atlantic Groundfish Council and its members, I would like to thank the committee for the invitation to appear on this important study.

The council represents the greater than 100-foot groundfish enterprise allocation holders in Atlantic Canada. Members harvest

over 45,000 tonnes of wild groundfish annually, supporting thousands of jobs at sea and on shore. Member enterprises are critical to the rural and coastal economy in Atlantic Canada.

The AGC coordinates Marine Stewardship Council sustainability certifications and fishery improvement projects for many fisheries. These programs provide premium market access by providing evidence that these fisheries are managed sustainably and supported by high-calibre science advice.

The primary goal of DFO science is to provide advice to inform transparent decision-making by the minister. Work conducted by DFO scientists is vetted and translated into stock management advice through the Canadian science advisory secretariat. The CSAS peer-review model is the envy of fisheries science processes internationally. When functioning properly, it delivers balanced, transparent and verifiable advice. While individual reviews may have challenges, this is not indicative of broad failures of the directorate. The AGC believes CSAS is well suited to its core purpose.

Our concerns with departmental science are directed at the inputs necessary for success and focus on fundamental fisheries science. Improvement requires attention to key areas, including stakeholder involvement, survey reliability, balanced investment, stock assessment capacity and objective peer-review processes.

Including industry and other stakeholders in the science review process is key to robust outcomes and broader acceptance of science advice. Industry brings a unique historical and current perspective often unavailable to departmental scientists, ENGOs and academic representatives, all of whom are experts in their own right. Industry participation creates an environment that leads to further co-operation and collaboration among these groups. Given that the data used in science assessments is often collected by industry, our inclusion is a necessity, and disallowing this participation will result in significant lost knowledge.

Delivery of information via complete scientific surveys is a necessary component to the provision of robust science advice. The capacity of the Canadian Coast Guard to reliably deliver the necessary platform to collect this information has been challenged by a combination of aging vessels, deployment scheduling and new vessel failures. Multi-year gaps in survey coverage are now becoming the norm. This has undermined DFO's ability to ensure that information collected on new vessels is comparable with those of the past, jeopardizing decadal time series.

Poor research vessel fleet management leads to less certainty on stock status, unknown stock trends and increasingly erratic advice. Fixing this problem must be a priority.

Core areas necessary for good fisheries management, including stock assessment science, have been overlooked or remain underfunded. Recent staffing efforts focused on populating new programs have resulted in a drain from existing ones. This means more vacancies in key stock assessment positions and gaps in analytical capacity.

Concurrently, DFO has increased the reliance on these same under-resourced work units. Legislated requirements and highly technical stock assessment frameworks mean stock assessment scientists are now being tasked to do more with fewer resources. Priorities are routinely dropped and shifted to accommodate new requests. Balanced investment is needed.

Becoming a proficient stock assessment scientist requires years of training, which is offered at a limited number of postgraduate institutions. Some skills can be learned over years of on-the-job experience and with mentorship from existing experts. Creating an environment where institutional knowledge can be passed to the next generation of stock assessment experts should be fostered by the department, alongside employee retention strategies to keep newly developed expertise in stock assessment positions.

CSAS reviews are often populated by personnel from within the local work unit, creating an environment of positive reinforcement and precluding fulsome review. External reviewers are increasingly difficult to identify, because of time demands, limited expertise and a lack of compensation. This creates an environment of cursory reviews as opposed to the scrutiny envisioned by the CSAS structure.

Input received by the department from reviewers during the assessment process can be challenging to record and action, because of significant delays in providing documents for participant review. Improved rigour of the CSAS process can be achieved by providing financial compensation to reviewers and improving the timelines for the review and posting of the materials arising from CSAS processes.

Stock science advice has a level of uncertainty, which is considered and incorporated when harvest management strategies and harvest control rules are developed through advisory and science processes. Once agreed, these harvest control rules provide future predictability on quota change and future harvest decisions.

With increasing frequency, ministerial decisions are departing significantly from this process, promoting arbitrary reductions in the absence of established scientific process or support. This must be addressed.

• (1110)

We ask that you consider the key recommendations presented in our submitted brief, as we feel that they are integral to improving the development, communication and utilization of scientific advice.

The importance of robust science has never been higher. We are in a period of profound change in the marine environment, driven by the large-scale forcing of climate change. Reliable scientific advice is key in ensuring that the oceans of tomorrow, while different from those of today, will remain a sustainable source of the low-carbon protein needed to feed a growing world.

We thank you for considering our input and welcome any questions or comments.

**The Chair:** Thank you.

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

**Mr. Leonard LeBlanc (Professional Adviser, Gulf Nova Scotia Fishermen's Coalition):** Thank you, Mr. Chairman. With my family tree having Canadian Mi'kmaq and Métis, I would like to recognize today as being National Indigenous Peoples Day.

Mr. Chairman, it's a pleasure to appear before the Standing Committee on Fisheries and Oceans, as I have done previously on different occasions. My name is, as you mentioned, Leonard LeBlanc. I was a harvester for 36 years, and president of our association for over 40 years. This past March, I stepped down as president of the Gulf Nova Scotia Fishermen's Coalition, but remain as an adviser.

During all these years, I've lived through different life cycles of science. Harvesters used to view science as a tool to control their participation in the fishery and their livelihood. There was little trust in science. If we go back in history, there was a time when fishermen were not permitted to attend meetings with DFO; only buyers were allowed. These things change, doors open and here we are now. I am here to state before you that history has evolved and changed for the best interests of all.

In my early years as president of our association, I took it upon myself to study the management of the fisheries, and quickly realized that science could be a valuable asset to advance positive changes in all fisheries and ensure sustainability.

I'll give you a brief description of my thought process. When I was fishing lobster in the eighties, we could barely make enough revenue to qualify for EI. After the cod moratorium, we quickly realized that we needed to have a greater say in the management of our fisheries. We spent over a year looking at changes that we could implement to increase our lobster landings and revenue.

A committee was brought together, which included Pictou Landing First Nation, the provincial government and DFO management and science. We built our own management plan, entirely based on science, which allowed the harvesters to be more involved in science and to build a better relationship with it. The result was increasing the minimum carapace size and reducing our fishing effort to increase egg production. We expanded the carapace size by a total of 15 millimetres over time, which was a significant increase. However, because harvesters were involved in the science process, they knew that this was what was needed. Harvesters are now having their EI clawed back, which is not a bad thing, and our fishery is far more sustainable than ever it was before.

DFO science has improved over time. Some of us have been selected as external experts in scientific peer reviews. The Gulf Nova Scotia Fleet Planning Board, of which I am the managing director, is working collaboratively with DFO on a five-year scientific exercise to study a scallop buffer zone marine refuge area. It's figure one. This area was used in the calculation of the marine protected area.

This project aims to increase the monitoring capacity within Canada's marine refuges to fill in critical knowledge gaps, so that effective conservation measures can be implemented to protect our marine environment. This is an example of a mutually agreed-to process by industry and DFO, which would not have happened in the past.

In addition to this massive project, the Gulf Nova Scotia Fleet Planning Board collaborates with DFO on many other science ventures, including a salinity and water temperature study, lobster recruitment research, a lobster moult cycle project and much more. DFO must take into consideration the capacity that the fishing industry can add to its data collection. Science is now our strongest ally. Without it, this fishery and industry would only be a small fraction of what it is today.

In conclusion, DFO must have sufficient financial resources to conduct its work. Previous governments have devastated DFO's science budget. This cannot happen again, because the fish, the fishermen, the economy and the environment will lose. DFO's decision to close the herring and mackerel fisheries this spring without a science-based rebuilding program bewildered many in the industry. This fishing community must be further integrated into the process.

Thank you for the invitation.

• (1115)

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

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

**Mr. Carey Bonnell (Vice-President, Sustainability and Engagement, Ocean Choice International LP):** Thank you for the

opportunity to appear before the Standing Committee on Fisheries and Oceans.

Ocean Choice International shares the standing committee's keen interest in science at the DFO. Ocean Choice is a family-owned and operated Newfoundland and Labrador seafood company started over 20 years ago by brothers Martin and Blaine Sullivan from the southern shore, an area of the province with deep roots in the fishery.

Today, Ocean Choice is a global seafood company with extensive harvesting and processing assets throughout Newfoundland and Labrador and Atlantic Canada. Our success relies both on the inshore fishery, buying and processing raw material from approximately 1,900 independent harvesters, and on the offshore fishery through company-held quotas. Through this, we employ over 1,700 people from over 300 communities.

We are focused on employing best practices to reduce our environmental impact. We use modern processing and harvesting technology and innovative fishing gear to improve our sustainability and reduce our carbon footprint. For example, in 2020, we launched the only "green class" designated vessel in the Canadian groundfish fleet.

We are responsible for delivering wild, low-carbon, sustainable protein to the world, and it's certainly our responsibility to make sure it's available for current and future generations. Over 90% of our harvest is covered by the gold standard Marine Stewardship Council's sustainability certifications for certified fisheries and through fishery improvement projects. We invest in the collection of marine data for scientific research for DFO scientists. We fund an industry research chair in fish stock assessment at the marine institute of Memorial University, which has grown into a nucleus of training for next-generation stock assessment scientists for the department. This is really a great example of how collaborative research should be conducted.

This leads me to the focus of today: the state of fisheries science at the DFO. There is little doubt that the Government of Canada has significantly elevated investments in DFO science. However, we are concerned that these investments have primarily been to support ocean science—such as funding to support marine conservation targets, marine mammal research, etc.—as opposed to its capacity and expertise for commercial stock assessments.

While investment in ocean science is critical to monitor the health of our oceans, it is high-quality stock assessment science that ensures the sustainable and optimal utilization of Canada's fish stocks.

In our view, it is deeply disappointing that stock assessment science has not seen a comparable infusion of funding, even though demands for government-required rebuilding plans, as well as sustainability certification supports, have grown exponentially over this same time period.

Coupled with capacity challenges in science staff, alarming gaps are emerging in the DFO's multispecies fisheries vessel survey program, which provides the basis for stock assessment science. For example, in 2021, the entire multispecies spring and fall surveys were missed for NAFO divisions 3LMNO off the coast of Newfoundland and Labrador. This, coming off the back of a fully missed survey year in 2020 due to COVID-19, has resulted in two full years of missed data for a multitude of indices.

The 2022 spring survey for this area appears to also have been largely missed, resulting in, potentially, an unprecedented three-year gap in coverage, which is completely unacceptable.

The implications of this situation are massive for the Canadian seafood sector as these surveys are the basis for responsible fisheries management decision-making, resulting in reputational risk, undermining market access and sustainability certifications, and increased pressures to be even more conservative with management decisions, with an accompanying opportunity cost burden for industry.

Why the survey failures? Many reasons have been provided, ranging from COVID-19 to the aging Coast Guard fleet issues and missing calibrations with the new vessels in the fleet, but the results are the same: missing data.

We well know about vessel operational challenges. However, such challenges, while real, should be overcome by good planning on the part of the Canadian Coast Guard in managing these research vessels. It is also noteworthy that, throughout the pandemic, industry-led surveys continued to operate without interruption. These are surveys where oversight is provided by DFO science, but industry platforms are utilized for a variety of reasons, including operational and cost effectiveness.

A great example of a working industry-led survey is the Northern Shrimp Research Foundation survey, which, since 2004, has operated annually, on schedule and without delays or major disruptions at a cost well below what government can achieve.

As the committee continues to hear from stakeholders and as you develop your report on the performance of DFO science, I ask you to consider the following two recommendations.

First, government must immediately address the research vessel issues and actively plan to expand the use of industry vessels as a more reliable means of gathering much-needed data that drives good scientific advice and, ultimately, science-based decisions by the minister.

Second, I strongly urge the Government of Canada to make strategic reinvestments in fundamental fisheries science and, in particular, stock assessment modelling capacity. These are the underpinnings of fisheries management in Canada and are critical for the sustainability of our marine resources and the creation of more value from the blue economy.

Thank you for considering my input, and I welcome any comments or questions.

• (1120)

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

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

**Mr. Mark Prevost (President, Bait Masters Inc.):** Thank you, Mr. Chair and members of the committee, for inviting me to speak today. It is our understanding that we've been invited here to provide testimony as representatives of the fishing industry, and in particular as the manufacturer of an alternative bait for the crustacean fishery.

Bait Masters is based in Nine Mile Creek, Prince Edward Island. Through extensive research, we recognized that there was a high demand for an environmentally friendly bait product that was more cost-effective and sustainable in the crustacean trap fishing industry. Our concept came from our own experience working in the lobster fishery and having direct knowledge of the shortages of available bait due to the pervasive issues of declining pelagic fish stocks, the fluctuating cost of traditional bait, the waste of fresh bait due to spoilage and the messy preparation of fresh bait.

Assessing the size and scope of the bait industry for crustacean fishing is challenging. Industry participants and regulators all acknowledge the difficulty in collecting accurate data, as stated in the mackerel integrated fisheries management plan. The actual landings of mackerel are likely significantly underestimated, as mackerel used for bait is not included in the Department of Fisheries and Oceans official statistics. Current and traditional practices in the supply, distribution and sale of bait products have not lent themselves to accurate recording. We have estimated the size of the industry by combining the DFO-published information and what science and experience tells us about the amount of bait used to catch different species of crustaceans.

In Atlantic Canada, including Quebec, the DFO statistics for 2020 indicate that there are 8,749 lobster licences and 4,036 crab licences. Averaging out the number of traps per licence at 275—it ranges from 250 to 300—each trap uses a minimum of one pound of bait per trap. Multiplying by the length of the fishing season, Bait Masters roughly and conservatively estimates that the demand for bait in Atlantic Canada, including Quebec, is approximately 694 million pounds.

On April 30, 2022, Fisheries and Oceans Canada announced the closing of the Atlantic mackerel and southern gulf spring spawning herring fisheries. The conservation and sustainability framework for Canadian fisheries and the integrated fisheries management plan indicated that mackerel stock has been at a critical level for the past 10 years, and the herring stock has been at a critical level for the past 20 years. Due to the current stock levels of mackerel, findings in audits by the Marine Stewardship Council have driven the need for actions that encourage and support improvement in mackerel fisheries management and mackerel stock assessment, and an imperative to identify sustainable alternatives to traditional baits.

Mr. Chair, this is hard for me. I'm probably the only guy who's going to be on a boat today, buying lobsters in fishing boats. I'm kind of struggling through this, but I'll finish it up here.

The closing of the mackerel and herring fisheries brings several issues into question. Sustainability of these two fisheries is critical for the long-term success of the crustacean fishery. The current data regarding stock levels are not accurate due to undeclared catches and the uncertainties in the scientific method of collecting the data, as indicated in both the mackerel and herring IFMP. Fishers need bait, so they have looked for other sources, including importing mackerel from Norway and Spain and turning to other pelagic fish such as redfish. Is there a risk of impacting stock levels of other fish? Yes. What is the impact, economic and environmental, of importing fish for bait from other countries?

On bait regulations, Canada currently does not have any regulations regarding bait. There is no process for review, validation and certification that a species or product is safe for use in the ocean fisheries. There is no traceability of imported fish, so there is no understanding of the origin of fish.

The Maine Department of Marine Resources has a vigorous process to assess and validate bait used for fisheries. The review is conducted through a bait review committee comprised of scientists, and a qualitative risk assessment of each species and/or ingredient for a proposed bait is conducted. Additionally, a chain of custody for all species and ingredients is required once the bait is approved. This chain of custody is required to remain with the bait up to and including the end-user, which is the fisher. We suggest that such rigour be applied to bait in Canada.

● (1125)

On alternative bait, the crustacean fishery is a very traditional industry, maintaining practices that not only have endured the test of time, but have provided a livelihood and demonstrated success to those involved. Fishers are reluctant to change these practices, which in many cases have been passed down through generations. Bait is very much one of those traditions. It varies from fisher to fisher and geographic location.

To truly impact the stock levels of mackerel and herring, an alternative must be used to allow the rebuilding of the stock. The alternative must incorporate what the traditional fishers need without putting a strain on mackerel or herring or the introduction of a new species. To overcome generational traditions and practices, the traditional fishers will need an incentive to try a sustainable alternative bait. Their livelihoods depend on crustacean fishing seasons,

and motivating them to change must be balanced with an offset to costs to minimize the risk to the fishers.

Thank you for letting me present today. We're not scientists, by any means, but we do have a deep understanding of the industry and the challenges we are facing. We know that we can be part of the solution.

We look forward to answering your questions and to the ongoing discussions.

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

I'll just state, Mr. Prevost, that we're not interested right now in hearing from scientists. We want to hear from people in the industry like yourselves, so thank you again for doing this today.

We'll now go to our rounds of questioning.

Before I go to Mr. Perkins for six minutes or less, I will remind members to please try to identify who you want to answer the question. You'll make better use of your time.

Mr. Perkins, we'll go to you for six minutes or less.

**Mr. Rick Perkins (South Shore—St. Margarets, CPC):** Thank you, Mr. Chair.

Thank you, witnesses, for appearing. We do appreciate it. We've had a balance of scientists—a lot of scientists—before the committee, but we also need to hear from those who are actually on the water and delivering this, because we believe there needs to be a balance. The minister needs both sides—at least both sides—in the decision-making process.

My first question is for Mr. Vascotto from the Atlantic Groundfish Council. I'm going to ask a question around a very specific issue.

On the Fundian Channel-Browns Bank area of interest—and for those who are watching, an area of interest is the last step before an area becomes a marine-protected area—according to DFO, that area encompasses important oceanographic processes and diverse sensitive habitats that provide shelter, feeding and nursery areas for a variety of commercial and non-commercial species. We know that's why. In particular, in lobster, for example, that's one of the two important breeding grounds for lobster in southwest Nova Scotia. It provides breeding for lobster from southwest Nova Scotia through New England—that and St. Mary's Bay.

Recently, only a few months ago, the minister announced that Facebook would be able to lay a fibre optic cable through that area, some of it on top because it's too hard to dig, and some of it buried right through that important breeding ground that is designated for a marine protected area. We know there have been a lot of science studies that show those cables have electromagnetic fields that could impact the migration patterns of lobsters, yet the minister allowed that to go through.

It seems like we're getting these contradictory messages from DFO. One says that we want to protect these areas, and the other says we're going to allow Facebook to drop a fibre optic cable right through a breeding ground for lobster.

I know that in response to this you made comments publicly, Mr. Vascotto, about the lack of consultation with the industry in doing that and on the terms around it. I'm wondering if you could take a few minutes to comment on that issue.

**Dr. Kris Vascotto:** By all means, thank you very much for the question.

Really, this is one of those situations where the industry was directly contacted by a proponent who intended to put the cable down in the tail end of last year, which was 2021. This was never brought to our attention directly by the department. It was all done by a proponent on a last-minute basis.

We were actually one of the few groups that looked at this and said that we needed to engage in this. We directly engaged the proponent. We provided them with very clear evidence that, first, they were going through a potentially marine protected area, and that, second, they were coming directly through some very important fishing grounds of ours. We really had no idea what the implications of this were going to be. When we were initially contacted, we didn't know whether it was going to be sitting on top or going beneath and what the impacts would be to the values that were identified within that Fundian Channel area.

After this situation developed, we raised it with DFO in an advisory situation. We were promised to have some sort of consultation and discussion. That never actually transpired.

At the end of the day, we received a notice by telephone on a Friday afternoon from somebody in New Jersey that the cable was being installed in the coming weeks. When we reached back to the department on this, we were led to understand that this was because of some international regulations governing the way these communications cables are laid outside of 12 nautical miles.

What we found really quite interesting about this situation was what you brought focus to, which is what was going on in the Fundian Channel. They were able to avoid further scrutiny on this cable that was going through the Fundian Channel because the mitigation measure that was offered was to lay it across the top of the bottom, as opposed to doing any sort of destructive habitat work of sinking the cable underneath the sediments, where it would be protected from incursions due to gear effects, whether it be mobile gear, long-line drift or anything like that.

At the end of the day, we were left on the outside, not really understanding how this activity was being permitted to happen or

what the impacts were going to be to those conservation values that they had identified in establishing this area of interest that will inevitably become a marine protected area. We also really didn't understand what the impacts were going to be to our actual fishing activities.

This is very similar to somebody laying an extension cord across your driveway and telling you that you'll be responsible for it if you happen to run over it. That was especially troublesome for our members, who are actively fishing, processing groundfish and shipping them to customers around the world.

It was really a bit of a miss on our understanding in terms of what the impacts of the actual program were going to be, what our overall sectoral involvement was to potentially either help guide this cable to be outside of an area of interest—we're working with the department to try to establish an MPA for this—or move it away from our fishing ground, where members are actually out fishing today.

I hope I was able to address your inquiry, Mr. Perkins.

• (1130)

**Mr. Rick Perkins:** You did. Thank you very much.

I have a little bit of time left, so I'll ask one supplementary question.

**The Chair:** I have your time paused, so you won't lose it.

I have to ask for unanimous consent to continue since the bells are ringing. I see the lights flashing. I thought that's what I asked for at the beginning at the meeting, but somebody is telling me in my ear that I still have to ask for it.

You have 26 seconds left, Mr. Perkins.

**Mr. Rick Perkins:** That includes the answer.

My quick supplementary question, because I have many more questions, is that I understand that the department had a letter of advice to the companies involved as to what they had to do to mitigate those measures. I haven't seen it. DFO has refused to release it, as I understand. Have you seen it?

**Dr. Kris Vascotto:** No. I have not seen it. I'm aware of the contents, which included basically.... The challenge was that there might be damage to sensitive benthos by burying, so the solution was to lay it on top in those areas.

**Mr. Rick Perkins:** Thank you.

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

I will remind members that it's a 15-minute bell. We all agreed earlier that we'd vote from where we sit. When the vote is actually called, we'll get to it.

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

**Mr. Mike Kelloway (Cape Breton—Canso, Lib.):** Thank you, Mr. Chair.

Thank you to the witnesses for being here.

It's an important study. The chair mentioned earlier the importance of hearing from scientists and also of hearing from people who work in the fishery. Your evidence and your testimony has equal weight and is so important. We're appreciative of it today.

My questions will be directed towards Mr. LeBlanc. I'll call you Leonard, if that's okay.

Leonard, you talk about the importance of science in your testimony. I want to go back to an important topic for everyone around this table—for the Atlantic region and the west coast as well—in relation to pinnipeds and establishing a strong foothold in terms of having it be a viable industry. Can you walk us through some of the things we need to be doing now in terms of making progress very soon and also some of the pitfalls we need to avoid, from your perspective?

• (1135)

**Mr. Leonard LeBlanc:** Thank you for the question, MP Kelloway, or Mike, if I can call you that.

**Mr. Mike Kelloway:** Please do.

**Mr. Leonard LeBlanc:** We've known each other for a while. I think you're probably referring to seals and the overpopulation of seals in Atlantic Canada.

**Mr. Mike Kelloway:** That's correct.

**Mr. Leonard LeBlanc:** That's something we have witnessed over many years, with the population getting bigger and bigger.

I think there's a need to have a science-based approach to start with. You need that. You need to establish markets for the product you're going to bring ashore. You may even expand into the medical field, because I think the Maggies were doing a study on possibly using the valves. They're probably better than the pig valves they're using now. You probably need to invest more money in that and see how viable it is.

Overall, the fishing industry must be included in the plan from the outset, because if it isn't, you'll be missing an important link. Every speaker who has spoken so far talked about the link of industry to science, and there's a need within this industry.

Action needs to take place, and it needs to take place soon. We need some action on this population that is taking over other species.

**Mr. Mike Kelloway:** Staying with that narrative, in terms of collaboration.... You talked about it in your opening statement with respect to the five-year study on scallops and how that's working. I'll get to that in a minute.

In terms of that collaboration, can you unpack...? We use words a lot around here, like “collaboration” and “co-operation”. In terms of collaboration with fishers to make significant movement forward on creating a viable, strategic, outcomes-based, rural economic boom for Atlantic Canada, what does that look like?

What would fishers want to see in a collaboration?

**Mr. Leonard LeBlanc:** I think it starts by having industry input on the protocol. That would be the basis of how we start. You bring industry together in one room, you talk and you formulate from that an action plan to proceed.

What has happened on too many occasions is that DFO wrote a protocol, wrote the standard and then delivered it to industry and said, “Here it is.”

We need to take a step backward and involve industry from the very beginning, so that everybody understands where each side is coming from. You could maybe bring in somebody from marketing to help at the same time, but you need to involve industry from the very beginning, not after the protocol is written and DFO has decided what the action should be.

**Mr. Mike Kelloway:** I'm going to give Mr. LeBlanc a break, and I'll go to Bait Masters, if I can.

Number one, thank you for doing this today. I know it's an exceptionally busy time for you, as you stated. I appreciated the presentation.

Can you tell us what the demand is like for your product now? The second part of my question would be, if you had a crystal ball—and I know you don't, but if you did—what's the future for alternative bait?

**Mr. Mark Prevost:** The hope is that there's a good future for it. The recent quota reductions, particularly for the mackerel and the herring.... All that did was hurt us more than it helped us, because now the quantity of mackerel and herring in the freezers in Atlantic Canada is higher than it's ever been. The amount of export coming into Canada from Morocco, Japan and Spain is higher than it's ever been. There's going to be more bait in our freezers, and everybody knows there's an issue with cold storage in Atlantic Canada now, because of the influx of bait.

I don't think the quota reductions are really helping right now. Over time, they probably will.

I believe that, with a lot of the stuff coming into Canada, there's probably some danger of contaminated fish or, for example, radioactive content in some of the mackerel from Japan.

Once all that washes out, I think what will happen is that we'll look for the next best thing. Fishermen, me included, need bait to fish with. We'll end up putting the strain on another species. You could see, most recently here in P.E.I., Nova Scotia and New Brunswick, gaspereau is now the fresh bait of choice. There's no more fresh herring or mackerel right now, so gaspereau is being overfished. It won't take long. It will be two years before we have an issue with that.

I didn't catch the second question.

• (1140)

**Mr. Mike Kelloway:** I don't know if I have time. Do I?

I have no time. I'll catch you on the other side.

**The Chair:** It's gone way over.

We'll now go to Madame Desbiens for six minutes or less, please.

[*Translation*]

**Mrs. Caroline Desbiens (Beauport—Côte-de-Beaupré—Île d'Orléans—Charlevoix, BQ):** Thank you, Mr. Chair.

I'll continue with Mr. Prevost.

I'm curious to know if you have Quebec roots. There are a lot of "LeBlancs" and "Prevosts" in Quebec. We'll talk about that in another context.

Mr. Prevost, you talked about an alternative bait. I recently travelled to the Magdalen Islands, where I met with sealers. We discussed the possible implementation of a seal population management plan. They were concerned that seals would be harvested for hunting purposes only, rather than with full respect for the animal.

I was informed that there was a research process to turn residue from seal into bait. Once the seal meat and skin are recovered, the residue could make interesting bait for your fishing activities.

Can you tell us what you think about this?

[English]

**Mr. Mark Prevost:** My Prince Edward Island French isn't that fast. I missed most of that. If anybody could redirect for me that would be helpful.

[Translation]

**Mrs. Caroline Desbiens:** Did you not have the interpretation?

[English]

**The Chair:** At the bottom of your screen you can select floor, English or French. If you select English, it will be translated into your ear as it's being spoken in French here in the room.

**Mr. Mark Prevost:** Rookie mistake.

[Translation]

**Mrs. Caroline Desbiens:** Shall I start over?

[English]

**The Chair:** I will ask Madame Desbiens to ask the question again as short as possible and allow you to give an answer.

[Translation]

**Mrs. Caroline Desbiens:** I'm not going to talk about your surnames this time. We'll talk about that later.

I recently met with sealers in the Magdalen Islands. They plan to increase the seal harvest, if possible, but only if the hunt is respectful and socially acceptable. They want to make the most of the animal killed by using every part of it. When the meat has been consumed and the skin used, the residue could make interesting bait for your type of fishing.

Have you heard of this? Can you give me your opinion on this?

[English]

**Mr. Mark Prevost:** We've heard of it and we've been asked numerous times. We had a minister in here last week, the minister of rural development from Newfoundland. I believe it's worthwhile to investigate trying it in an alternative bait. Right now we're using 80% by-product in our bait sausages. We have proof of concept, and we're selling it so we can make money at it.

With the seal we don't know. We would have to grind up and test 10,000. Typically a field test is 10,000 sausages against 10,000 bait

products the fishermen are already using. As far as lobster diet and crab diet goes, seal would work I would think. We're investigating.

• (1145)

[Translation]

**Mrs. Caroline Desbiens:** In any case, I am interested. As long as there is a risk of radioactivity with mackerel from Japan, I would prefer that the lobsters harvested here be caught with the residue from an animal that has been honoured beforehand by the concept.

I'll now turn to Mr. LeBlanc.

We're talking about better predictability that could benefit herring and mackerel fishermen, among others. They're asking DFO to provide more predictability in terms of financial or other compensation for decisions it has to make suddenly.

Should we suggest to DFO that it always provide for some sort of clearing bank when it has to make decisions quickly?

**Mr. Leonard LeBlanc:** I'll answer you in the same language.

Personally, I think it's necessary when decisions are made on short notice. When DFO decides to close a fishery after very little discussion with the industry, it should compensate the people who totally depend on that fishery.

I think that would be necessary.

**Mrs. Caroline Desbiens:** I really like your pedigree—pardon the expression. I really like the experience you have acquired during your 36 years as president of your organization. You must have seen all kinds of things. You remind me a little bit of my father. I don't want to make you feel old, but I'm referring to all the experience you have in the field.

We can all see that there may be a provision that will lead us to strongly advise DFO to take into account the realities on the ground. In this sense, you spoke earlier of science as an ally, but you said you needed openness, and therefore better communications.

Do you think it is possible, in the short term, to ensure that communications are more effective between DFO science and the people on the ground, both in your region and elsewhere?

**Mr. Leonard LeBlanc:** Yes, discussions on science could take place right away. There's no need to wait. In the case of the herring and mackerel fisheries, DFO wants to have discussions in the fall. In my opinion, that's too far away. When a fishery ends, meetings should be held without delay. The time allowed for discussing certain subjects should be limited.

**Mrs. Caroline Desbiens:** What would be your ultimate request?

[English]

**The Chair:** I'm sorry, Madame Desbiens. Your time has gone over.

[*Translation*]

**Mrs. Caroline Desbiens:** Okay. It's no big deal.

[*English*]

**The Chair:** I did allow an extra minute for the question that Mr. Prevost didn't hear, or get translated.

We'll now go to Ms. Barron for six minutes or less, please.

**Ms. Lisa Marie Barron (Nanaimo—Ladysmith, NDP):** Thank you, Chair.

Thank you to all the witnesses who are here today. It's really valuable to us in this study that we hear this information, and we appreciate all of the statements and questions that are being answered today.

My first question I wanted to ask is for Mr. Prevost.

Again, thank you for being here. You spoke a bit today about there currently not being a process for review, validation and certification that a species or product is safe for use as bait in the crustacean fisheries. You also spoke about the importance of the chain of custody to remain with the bait right up until the time it's in the hands of the fisher, and also referenced the Maine Department of Marine Resources as a good example of that chain of command that occurs.

I'm wondering how you think the lack of understanding of the origin of the fish that's being used as bait impacts our ability to sustainably fish. Do you have any thoughts around that?

• (1150)

**Mr. Mark Prevost:** It's a good question. Thank you.

We manufacture an alternative bait, so there are ingredients in it.... It's all fish, but some of the ingredients that are being used now, I guess in alternative baits, regularly wouldn't pass the conditions required by the Department of Marine Resources. I think as fishermen start switching to alternatives there's a danger in.... We do the risk assessments and the studies so that we know we're not going to negatively impact the biomass or the lobster...or that we're going to give something to a lobster that somebody's going to eat.

I also think, with proper chain of custody, it avoids a lot of the undeclared catch or any of the cash stuff that goes on and whatever happens. There's a lot of product coming and going for cash, and it takes care of that, which helps people track. DFO, if they want accurate stats, they need to have an accurate recording of what's being sold and what's being used.

For some of the custom baits, the first thing we do before we introduce a species for bait is that we'll put it through a risk assessment so that we know it's safe for the biomass and it's also safe for human consumption if the lobster is eating it and then somebody is eating the lobster. That's what I think. Something like that's important for Canada.

**Ms. Lisa Marie Barron:** Thank you very much.

My next question is for Mr. Bonnell.

We've spoken a lot about the importance of stock assessments and the vessels required to conduct the stock assessments. One

point you touched on was the investment in a green class designated vessel. I'm wondering if you could speak a bit more about how DFO has involved fishers in a transition to a greener fleet and expand on what that designation actually entails.

**Mr. Carey Bonnell:** Yes. Thank you for your question.

That's the newest vessel added to our fleet, the MV *Calvert*, which is our largest factory freezer trawler operating in offshore Newfoundland and Labrador. It has been an industry process that has really driven that exercise. With a new vessel build, you have the opportunity to do things the way you want to do them and to follow best practices. It's kind of difficult with existing vessels in the fleet—modifications are more challenging—but when you're starting from scratch, as we were, you want to put in all the modern technologies.

I think, based on our estimation—I'm trying to recall the numbers now—compared to another vessel of a comparable size, with a green class designation we save about 2.5-million kilowatt hours of energy per year and have about 500 tonnes of saved fuel per year. Think about the reduced greenhouse gas emissions and think about the reduced costs. Given the cost of fuel right now, that's a major consideration. It has everything from LED lighting throughout the vessel to automated technology on board the vessel and clean exhaust technology. It's state of the art in terms of everything that's available that we've installed on this vessel, and we're quite proud of it. We're quite pleased with it, and as we go through a continual fleet renewal over the coming years, we'll be looking to do the same thing.

This is one step in a multistep process that we look at as a company, ranging from vessels to obviously working with DFO on stock assessment science and trying to advance best practices there, to marine bioprocessing and waste utilization. We are an industry that I would say is generally continuously looking at ways to do things better, to do things more environmentally sustainably.

I would say that fish as a protein source is already among the lowest carbon sources of protein you'll find globally, but we continue to look at ways of doing it better and doing it more efficiently. Some of that is driven by industry. Some of that is driven, obviously, by government, and some by ENGOs, but moving in this manner along the spectrum of sustainability is a responsibility that I think we all bear and we're all pursuing. I think that's a fair point.

**Ms. Lisa Marie Barron:** Thank you. I love hearing about this. It's a great step in the right direction.

I don't think you answered this question: Are there any barriers that you're seeing for others in being able to go down this road you're taking to ensure that your vessels are greener and more sustainable?

**Mr. Carey Bonnell:** The key barriers on the vessel side, if that's the specific question, are that it's very difficult.... I lived in the space. I worked in academia before coming into industry, and I ran an organization called the Canadian Centre for Fisheries Innovation for a number of years as well. It's very challenging to modify existing vessels in the fleet. Whether it's an inshore vessel, an offshore vessel or a middle-distance vessel, the costs involved in modifying vessels to be greener and more sustainable are very challenging.

There are things you can do, obviously, to get more efficient, but when you're starting from scratch, when you're going through fleet renewal and building a new vessel, you have the option to look at, in the inshore sector, a length-to-beam ratio that's more appropriate to ensure a streamlined vessel in the water to cut down on fuel costs. You can look at bulbous bow designs. You can look at reducing sulphur emissions. There are all kinds of things that you can look at doing with a new build that are kind of difficult with the existing fleet.

Where industry is moving to renewal...and I should say that there are programs out there. I mean, if there's one area.... You asked for what the Government of Canada is doing, and obviously there are programs like the clean-tech fund. That's available right now coast to coast to coast is my understanding. Industry can avail itself of that to look at ways to reduce greenhouse gas emissions on vessels, in plants and throughout the value chain and the supply chain. Expansion of programs like that would be quite valuable to continue to help industry down this road to look at possible cost-sharing for some of these improvements where the costs are prohibitive and to take on sector-specific initiatives to help advance this agenda. I think the maintenance and continuation of programs like the clean-tech fund, as an example, would be quite beneficial.

• (1155)

**The Chair:** Thank you, Ms. Barron. We're a bit over time.

We'll go to Mr. Arnold to see if we can get his five minutes in before we have to take part in a vote.

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

Thank you to the witnesses today.

This study is one that I put forward to examine how the Department of Fisheries and Oceans prioritizes resources and develops science studies and advice for the department, how the results of the science study are communicated to the minister and Canadians, and how the minister applies data and advice provided by the department and other government departments in ministerial decisions.

Mr. Vascotto, I'll start with you.

On June 2 at our meeting here, Melanie Giffin of the P.E.I. Fishermen's Association told the committee that her association has not always been invited to participate in the DFO science and science advisory processes. In the past when the association made a request for a seat at the table, it has been denied even a seat as an observer during that process. In her view, there is a lack of interest by DFO in hearing what fish harvesters have to say.

Considering that harvesters see changes in the marine environment before DFO scientists, Mr. Vascotto, in your opinion, how should fish harvesters' knowledge be integrated into the CSAS process?

**Dr. Kris Vascotto:** Thank you very much for the question. This is one of those issues that is near and dear to all of our hearts.

Industry members are able to bring forward a unique position. I look around at the list of witnesses we have at this meeting today. They are actually able to bring observations that are outside of the

standard, whether those be DFO research vessel surveys or some sort of external viewing through a satellite image of chlorophyll or things like that. They are observing things on the water.

Bringing these people into the CSAS process is incredibly valuable because they're able to discuss and present this information, which trained scientists can then take and actually formulate advice from. When data is being presented that might not necessarily match the interpretation from the fishery, context can be provided [*Technical difficulty—Editor*] fishery.

We recently had a CSAS process whereby they were discussing bycatching and bycatch patterns. Because we were able to include industry members that had experience in that fishery, they were able to point out that some of the data being presented was incorrectly pulled from a database. It was leading to very inappropriate examples of where bycatch was being encountered, what was being encountered and at what rates.

By allowing the industry—

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

I have a whole series of questions, so I have to try to move on, if I can.

How would you say that academics and environmental non-governmental organizations collaborate with fish harvesters in the science projects?

**Dr. Kris Vascotto:** We collaborate directly with them. We often work directly with DFO science if they require some additional information, whether it be length-weight relationships being derived from a plant or gonad samples being taken from our vessels.

With the environmental non-governmental organizations, we also try to collaborate where we have a common interest or goal in mind. Sometimes this can be challenging because some people come to the table with different perspectives.

I'll keep it short for you. Thank you.

• (1200)

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

How difficult is it for you to evaluate whether a particular DFO management decision or policy has been evidence-informed?

**Dr. Kris Vascotto:** Thank you for the question.

We look at the decisions as they come out. We also have as evidence the CSAS reports that are being produced, which can tell us what our projected stock is going to do and what factors are involved. They actually provide that clear advice to the minister, which is translated through the groundfish advisory or those resource advisory committees.

When a decision comes down that is outside of those key areas or key recommendations, then we begin to ask questions about how this was developed and what the basis of it was. Sometimes we come up mystified; other times there is a real rationale. We just need to be able to understand it such that we can gain the greater industry buy-in.

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

What industry inputs are most absent from the DFO science process?

**Dr. Kris Vascotto:** Often the inputs that are missing really are derived from some of the people you see on this call.

Because of this move away from a larger inclusion of the harvesting community into some of the CSAS processes, that voice can't be heard. Those questions are coming after the process is complete and after the decisions and recommendations have been made.

Being able to front-end load those questions into the process allows those answers to be developed and greater industry appreciation, involvement and understanding to be derived from it.

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

Quickly, with Mr. Bonnell—

**The Chair:** Mr. Arnold, you have only about 12 seconds left.

**Mr. Mel Arnold:** I could have gotten it in five.

**The Chair:** You won't get an answer in.

**Mr. Mel Arnold:** You could.

**The Chair:** You won't.

**Mr. Mel Arnold:** Are you cutting me off...?

**The Chair:** I'll give you your 15 seconds when we get back.

I think we have to pay attention to what's happening in the House. There's a vote called and the time is counting down.

We're going to take a very short recess to enable members to vote. We've all agreed to stay in the room and do it by phone or through the app. We'll get back to the business of the committee very shortly.

We'll take a quick recess to enable people to vote.

• (1200) \_\_\_\_\_ (Pause) \_\_\_\_\_

• (1205)

**The Chair:** We're back.

Mr. Arnold, I have 30 seconds on my clock now.

You can start when you like. That's for the question and the answer.

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

Quickly, for Mr. Bonnell, you mentioned there are gaps in fisheries science. Can you give us some concrete examples of this, and describe the implications of these gaps?

If you don't have time for a full verbal response, we'd be happy to see a written response.

**Mr. Carey Bonnell:** I'm sure my time is short.

Certainly, stock assessment modelling capacity would be probably the biggest area we would flag, including a statistical analysis, ensuring you have the capacity to take stock assessments that are completed, when they are completed. That is one of the issues we

have. A robust review and analysis is also necessary to ensure we're using the most up-to-date and latest models that are taking into account climate change considerations, so on and so forth.

We haven't seen those types of investments in Canada that we're seeing in some other western jurisdictions, certainly in places like Norway and Iceland, where there are significant investments in stock assessment science capacity.

As I indicated, the investments here are more on the ocean science side, which we support as well. I'm not knocking that at all, but we need a fundamental investment in core modelling capacity. It's not exciting, when you're talking about modellers, assessors and statisticians, but it is the foundation of sustainable fisheries management in Canada.

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

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

**Mr. Serge Cormier (Acadie—Bathurst, Lib.):** Thank you.

I'll ask my question in English or French, so just make sure your translation button is on.

The first question is for Mr. Bonnell.

In your remarks you said that 90% of your harvest is covered by MSC sustainable certification. I have known about this certification since 2017, when we were impacted by the right whale measure in my area.

What will be the impact on your industry, on your business and on the market, if we lose some of those certifications?

**Mr. Carey Bonnell:** Thank you for the question. It's a topical question, certainly.

It will have huge implications. For us, as a company, we have our own global sales capacity in North America, Europe and Asia. It is a market access issue for us, particularly in North America and Europe. Asia is emerging, but in North America and Europe, we cannot sell seafood into high-end markets without either our fisheries being Marine Stewardship Council certified, or in a robust fishery improvement program, which is a path to certification.

These are well-recognized programs that put you on a path to certification. Unit 1 redfish is an example of one we're engaged in now. Grey sole and a number of others are coming out of moratorium, and will eventually roll into MSC certification. It is absolutely essential.

**Mr. Serge Cormier:** On top of that, as you're probably aware, there is the Marine Mammal Protection Act. The U.S. is monitoring closely what we're doing with our fisheries. We're talking a lot about seals lately. We all understand we need to do something about the seal population. It has some effects on our other species. If we do it wrong with seals, if we just go there and harvest seals, can this also have an impact on our crab and lobster market, for example, in the U.S.? As you know, that is where we export almost everything.

What are your thoughts on that? What is your take on that?

• (1210)

**Mr. Carey Bonnell:** That's a relevant topic. We deal with this on a regular basis in terms of, again, market access issues. You have the Marine Mammal Protection Act considerations in the U.S. We have the new SIMP, an import monitoring program coming from the U.S., where we have to declare, basically, that our commercial fisheries are not having negative implications on marine mammals.

You've already touched on the issues in the Gulf of St. Lawrence, obviously, on the snow crab and lobster fisheries and the implications. It is something that, certainly in North America and Europe, for global sales and for sales of our seafood, we need to be aware of and we need to consider. We need to make sure whatever we do is done, certainly, thoughtfully. We're looking at a responsible and sustainable utilization of all of our marine resources, seals or otherwise.

Yes, it has to be done the right way. On the flip side of that, and you've already covered this, we have a huge predation issue with respect to seals. There are about 7.5 million harps in our waters. The seals task force indicated that 3.2 million metric tons of food is consumed by those seals. It's a real issue impacting the recovery of a lot of fish stocks. It requires dedicated attention on a number of fronts.

**Mr. Serge Cormier:** Just quickly, I'm pretty sure you're aware of the right whale measure. You see the map of the gulf almost shut down. Do you think those measures can be revised a bit, so that we can still retain MSC certification and, at the same time, ensure the Marine Mammal Protection Act is met in the U.S.?

**Mr. Carey Bonnell:** I would absolutely hope so. The MSC certification has been suspended with respect to the gulf and the issues regarding snow crab, at least.

As a company, we buy some crab from that region and that has created a lot of challenges in terms of selling that into the U.S. market. There's a fishery improvement project right now looking at ETP species. I'm loosely connected with it, not directly connected, but I think it's on the right track, looking at ropeless gear and looking at a whole host of things over a period of time to get us back into that certification.

You'll buy some time with a FIP, but you have to make sure your FIP leads to the actions necessary to get back into certification. It's a good point.

**Mr. Serge Cormier:** I wanted to go to Mr. Prevost, but you have me there. You're saying the MSC certification is very important. As you know, it's been suspended. I think it's still suspended. The price has never been so high.

To put it in perspective, you tell fishers it's very important, but at the same time, they're having wonderful prices. They're saying, "Maybe the MSC certification doesn't matter that much, at the end of the day."

**Mr. Carey Bonnell:** I have two quick points on that.

One, I think the price may be high to harvesters, but the market price is not high right now. We're in a collapsing market, unfortunately, but that's a bigger conversation.

Two, MSC has a market access issue. You're not guaranteed premium prices for MSC. It's a bit of a misnomer. Some people like to argue that it is. In some cases, you might be able to find a premium, but in reality it's a market access issue. It gets you in the door, irrespective of the price.

**Mr. Serge Cormier:** Mr. Prevost, when I have a little time, I'll get back to you.

**The Chair:** Thank you, Mr. Cormier. You've gone over your five minutes, actually.

We'll now go to Madame Desbiens for two and a half minutes.

[Translation]

**Mrs. Caroline Desbiens:** Thank you, Mr. Chair.

I'm going to continue on what Mr. Cormier was saying about right whales and the restrictions put in place by the United States, because I found that really interesting. These restrictions are legitimate, in my opinion, because we really need to ensure that there is an ethical approach to fisheries.

Mr. Bonnell, I'm going to turn to you. Once again, during my trip to the Magdalen Islands, which was very fruitful, I was told about the possibility of monitoring the right whale in a more specific, focused way. There are satellites in space that can target the mammals' movements very precisely.

Shouldn't DFO be using more technology to allow fishermen to keep their fishing grounds a little longer and to increase predictability, again, on whale protection?

[English]

**Mr. Carey Bonnell:** Thank you for the question.

I'm going a bit outside my area of expertise. I'm not directly engaged here, but I do follow it closely.

I think the dynamic closure structure in place in the gulf has evolved quite a bit over the past couple of years and has created some level of flexibility for the industry.

I came out of the technology space, as I mentioned earlier. I think technology is advancing quickly these days, whether it's satellite technology or acoustic tracking and tagging technology. There are so many opportunities to advance technology, make this process more seamless and allow commercial fisheries to operate more seamlessly while, at the same time, protecting sensitive species like right whales and others that need protection. I think we're going to see a technology revolution over the next number of years in these areas, and it's the right thing to do.

Cost-effectiveness, obviously, is a consideration in all of this, whatever we do. Whether it's gear developed by fishermen or technology used by governments, finding ways to do this on a cost-effective basis is obviously going to be critical. Generally speaking, it is the cost of doing business and a road we have to go down. There's no going back on these measures. We have to deal with them.

• (1215)

**The Chair:** Thank you, Madame Desbiens. There are only eight seconds left. I don't think we'll have much time for a question or answer.

Ms. Barron, you have two and a half minutes.

**Ms. Lisa Marie Barron:** Thank you, Mr. Chair.

My first question is for Mr. Bonnell, again.

One thing we talked about in this study, with previous witnesses, is the importance of having access to publicly available DFO science and research.

Can you clarify your experience? Has Ocean Choice been able to access such information? Do you have any suggestions for ensuring this information is more transparent and accessible?

**Mr. Carey Bonnell:** Thank you for the question.

As Dr. Vascotto indicated earlier, many of us are engaged in stock assessment, science processes and management decision-making processes with DFO on key stocks—whether it's the CSAS process or fisheries advisories processes. I think we generally get access to the data and we're generally part of that process. We have indicated some concerns, in recent years, about restrictions and harvester representation but, generally speaking, access to data is not a big problem.

The bigger problems, from our standpoint, are gaps in data collection. As I outlined in my speaking points earlier this afternoon, the fact is that we have multispecies surveys being missed. I used examples in the Newfoundland and Labrador region, but I could cite examples in the Maritimes, on the west coast or with my friends in the eastern Arctic, with whom I spend a lot of time. There are a lot of gaps in stock assessment surveys right now that need urgent attention, because we need the best available information.

**Ms. Lisa Marie Barron:** Thank you very much.

Mr. Vascotto, you had spoken about the importance of knowledge being passed down through generations of scientists. I'm wondering if you could speak to your perspective on the need for men-

torship or institutional knowledge to be passed down and how that impacts your day-to-day.

**Dr. Kris Vascotto:** Really a great example of this lies with DFO survey information, which Mr. Bonnell was just discussing. Surveys are conducted annually and those surveys require...whether they sample during the day or the night and how this changes over time. If you have a staff member who's well trained and has 30 or 40 years of experience with this survey information and knows where the limitations are being replaced by somebody who doesn't have that same knowledge, you lose all of that institutional understanding about the context of how that survey information might be interpreted.

Without that overlap and that mentorship you fail to have those pieces of information, which weren't necessarily well documented, be transitioned to the next person, the next individual in that position, to be able to share the continuity.

The same is true about some of the stock assessment approaches and whether something was used one way in the past and another way now. These are all pieces that we need to avoid making the same mistakes as we've done in the past and also to make sure that we're continuously moving the bar forward as it comes to developing our scientific capacity.

I hope that addresses it. Thank you.

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

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

**Mr. Clifford Small (Coast of Bays—Central—Notre Dame, CPC):** Thank you, Mr. Chair.

Thank you to all the witnesses for coming here today.

My first question is for Mr. Bonnell.

Mr. Bonnell, what are the industry implications of the missed Coast Guard vessel surveys over the past three years, and how could the minister create a pertinent management plan without those assessments?

**Mr. Carey Bonnell:** The implications, as I indicated partially at least in my opening comments, are significant. These multispecies surveys are the basis for decision-making on many key fish stocks.

I'll use our company as an example. I highlighted the 3LMNO missed surveys for the past two years and that potentially the spring survey this year was missed as well—so three consecutive years. I think of fish stocks like Greenland halibut, which are highly lucrative fisheries, where most of that management zone has been missed. Yellowtail flounder, which is a major fishery for us, has been missed the last two years and maybe the last three years. There's redfish. Snow crab would be another one that was missed in the multispecies survey. Luckily, we have a really good, high-quality trap survey in the case of snow crab.

These missed surveys have huge implications because you have no new information when you come into the CSAS process. When you get into the management decision-making process, you have no new information really to base decision-making on and you have no trends. That can present a huge opportunity cost for industry if we're looking at resources that are trending in an upward direction.

Conversely, obviously, there are concerns in terms of any negative impact it might have if you're not monitoring those stocks on a regular basis, so there are huge implications for us.

In terms of doing it better—or what the minister could do—there are two things as my recommendations outlined. One is to close the gap on the missed surveys, which I flagged, with the Canadian Coast Guard. Second is to look at ways for industry to be more actively engaged in these surveys.

We do this, and I used examples in my opening comments. I could use other examples where industry surveys can be used to help fill gaps that exist in DFO direct science. It's still driven by DFO. The survey methodology is still driven by DFO. The oversight is provided by DFO. It's analyzed by DFO, peer-reviewed by DFO and recommendations come out of the minister's office. Obviously, they come out of the department and into the minister for decision-making.

Those are the areas, I think, of improvement that really are urgently required to address some of these massive challenges that we're facing right now in stock assessment.

• (1220)

**Mr. Clifford Small:** Mr. Bonnell, what are your views on how government could more readily engage industry in research vessel surveys?

**Mr. Carey Bonnell:** Again, I use the example of the Northern Shrimp Research Foundation. It's a really good example. We've been doing this survey now since 2004, I believe. All the offshore members in the shrimp fishery are engaged in this. It's off the coast of Labrador and south of Nunavut. The survey was conducted, and our vessel was used for that particular survey. It's been done for, I think, 18 years now on time and on budget, and it contributes valuable information annually into the assessment process by DFO. Again, all oversight is provided by DFO.

I could cite similar examples on Atlantic halibut. We were engaged directly with DFO on industry-driven surveys with the in-shore sector and partnering with the midshore and offshore members. There are examples in the scallop industry. There are many redfish off the south coast of Newfoundland. We have an AGC survey conducted every other year.

There are many examples of our industry surveys. During the pandemic, we didn't miss a beat. In 2020 our surveys were largely still completed, and the information was still largely provided to DFO. It was done independently with oversight and standardized. There's an opportunity to do more of this, I think, on a go-forward basis. I'm certainly firmly of the view that this can be done, particularly to address the gaps with the Coast Guard right now.

At least have contingency plans. One of the strong recommendations—and this may be my last point on this—that we've made to

government is to have contingency plans in place. Then, if a vessel goes down, have a couple of boats, several boats, industry standardized through the trawl standardization process, and be ready to go on relatively short notice. At least you'd have a backup plan, a contingency plan, if one of the aging vessels in the fleet goes down or if you have an issue with one of the newer vessels in the Coast Guard fleet. You'd have an industry platform available to provide that service so you don't miss this valuable information. That would be something I would strongly recommend as well.

**Mr. Clifford Small:** Thank you, Mr. Bonnell.

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

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

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

My question is for Dr. Vascotto.

Numerous witnesses appearing before the committee have referenced the DFO modelling. It's something that I am not familiar with at all. A retired senior DFO manager referenced the Scandinavian stock model.

Dr. Vascotto, are you familiar with DFO modelling? Is it accurately capturing the data that's going in, in an effective manner, so as to get the right decision coming out?

**Dr. Kris Vascotto:** This is one of those questions you could go on for hours about. The reality is that every stock assessment model is fundamentally different in how it's structured. One of the important pieces at the review process is to pick apart that model and to make sure that it actually makes sense. Do the values for recruitment make sense? Do they match what's seen on the water? Do the patterns for growth match what we're seeing on the water? Do the trends in biomass match what we see on the water?

That is often much more important, that validation process, than what the actual model structure would be. We can have a very simple model that can give very good answers, so we don't need a more complex model. You can also have some very complex models that tend to alias very important things that are going on in the stock such as ignoring recruitment patterns and ignoring strong year-classes that support the fishery.

Really, the challenge is to make sure that, when we review these models, you have the right experts in the room to pull them apart and to tease these pieces out to make sure they're giving a real signal and that you also have the people around who can demonstrate it.

• (1225)

**Mr. Robert Morrissey:** Okay. Thank you.

My next question is for Mr. LeBlanc.

Leonard, you referenced, in your written brief to the committee, the need for better collaboration between the fisher experience and DFO. We've heard this extensively in this report about the sometimes inability of fisher knowledge to find its way into the science-based decision-making process at DFO.

My question for you is a candid one. When the minister announces an increase in stocks, nobody questions the science, including fishers. The minute you start cutting the quota, then everybody starts to question the science. What would you recommend to this committee for its recommendations to the minister that the information provided by fishers is valid and can be taken into the consideration process? Could you give us your opinion on that?

**Mr. Leonard LeBlanc:** Thank you for the question.

I've raised that same point at different committees. When stocks were going up, the science was everybody's best friend. When the stocks were going down, the program that they were using before was all of a sudden invalid. It didn't work, because the numbers they were coming up with didn't satisfy the fishermen. I've expressed that in many committees.

As I think some of the previous speakers alluded to, there's value in what fishermen see. What they witness on the ocean could be included in science evaluations. We have thousands of eyes on the ocean every day who see change, and thousands of ears. That could be put into the science, but science seems to think that if it's not up to their standard, then it's basically no good. I think there's a need to re-evaluate how science is done and how science is calculated. I think what the fishermen can bring, their knowledge and what they see, is very valuable.

I think the process has to change. I'm not pointing the finger at anybody, but it seems like, in some instances, if you don't have a university degree, you're not to be heard. That frustrates me. I don't have a university degree, but I've worked with science for 40 years.

**Mr. Robert Morrissey:** Thank you, Leonard. That's a valid point, and actually, that's the first time we've heard that. If you could provide anything in a written form to us on how you would like to see fisher knowledge incorporated into the department's scientific decisions, it would be appreciated.

Thank you.

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

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

**Mr. Rick Perkins:** Thank you, Mr. Chair.

Mr. Bonnell, you've spoken about the issue of whether or not an adequate number of science budgets are being provided on the "F" side of DFO, the fisheries side. I think in 2021 the budget was \$158 million. It has not increased as much as the ocean side of the science has over the last six or seven years. That's grown by about 63%. If it had grown by 63% on the fishery management side, this year there would be another \$37 million available for fisheries science.

Do you have any idea of how much \$37 million would help in providing for the gaps that exist in the integrated fisheries management plans?

• (1230)

**Mr. Carey Bonnell:** I'd need to get my calculator out for that one, I think. It's a very good question. That would provide tremendous value if targeted in the right direction.

I want to preface all of this by saying that we're certainly not opposed to the investments that have been made in ocean science. I mean, \$1.5 billion has gone into the oceans protection plan within the department over the last five or six years, I think. That's a significant investment. Some of that, at least, has gone into direct issues around the marine mammal issues that we covered earlier, but we're not seeing anywhere a remotely comparable investment in the expansion of stock assessment capacity in terms of research vessel surveys. We're certainly not seeing an investment in stock assessment scientists, or not at the level required with all of the challenges on the horizon in terms of meeting third party certification standards around the Marine Stewardship Council, where we need management strategy evaluations and harvest control rules. You also have batch one stocks that I think Dr. Vascotto touched on earlier in terms of rebuilding plans.

We have initiatives lined up in the queue right now with the department. I can only speak for us, but I'm sure there are others in industry across the country, where you have initiatives lined up in a queue that need to be done, but you have a very small number of stock assessment scientists available to do it. They're all the same people working on the same files. You're going to have an issue of a generational gap if you're not careful, as the brightest and smartest scientists and stock assessment modellers are going to be exiting the system in the coming years through retirement. You're not going to have those transitional skills in terms of new people coming in.

I'm really concerned about this. We've been flagging this for a number of years. That \$30-something million certainly would be quite valuable if targeted and focused specifically in the area of stock assessment science, modelling capacity, meeting fisheries' required targets that we need to meet, getting the best science available in a changing climate—all things that are really desperately needed. We certainly need that infusion of funding. That amount or more would be very welcome right now, I can certainly tell you that.

**Mr. Rick Perkins:** Thank you very much.

Mr. Vascotto, I'm going to follow up on Mr. Morrissey's question. It's a bit of a follow-up on the modelling accuracy. You said having the right people in the room was your next question, which you didn't get to ask, in terms of questioning that science.

One of the issues I have brought up here is the analysis that our team has done. An example is that at the time of year when the mackerel science is being done on the spawning biomass in the Gulf of St. Lawrence, the average water temperature over the last decade has been eight degrees as opposed to the temperature in which mackerel spawn at in the gulf, which is 10 to 13 degrees.

Is that the kind of questioning you would like to see in terms of having access in the room to what's being done, because a lot of that science that's being done to do the stock assessments is not actually peer reviewed?

**Dr. Kris Vascotto:** Yes, that is exactly the focus, where you have a body of knowledge from outside that is in conflict or in contrast to that presented in the room. Unless that knowledge is brought to the table during those discussions in the CSAS process, it generally is not accepted, so then it is forced to be offered after the fact when it cannot be actually incorporated into the science or decision-making process.

**Mr. Rick Perkins:** Thank you very much.

I'll go back to Mr. Bonnell.

In talking about the use of commercial fleets or fleets to help doing the science as a backup, is that a more cost-effective way? Is this something that DFO should be doing with limited budgets, actually not as a backup but as an expanded program to have access to more platforms to more economically be able to do the science they need to do on the species that aren't being covered right now?

**Mr. Carey Bonnell:** Yes, absolutely. It's not even a debatable topic. There's no doubt that the use of industry platforms when properly standardized, with proper engagement between the industry platform provider, the industry association engaged and DFO, you go through that proper exercise.... Coast Guard government research vessels certainly cannot match the cost-effectiveness, and I would argue they probably can't match the coverage and the reliability. There's data to back that up if the committee were so inclined to take a closer look.

Yes, I think it could easily be expanded. You're not sacrificing anything in terms of the legitimacy of the research. Again, I want to stress this point. This work is done with oversight and led by DFO. It's us providing platforms for the research and we're good at managing boats. That's what we do. We can provide boats on a time series basis, on a cost-effective basis, with good planning, and it can be as a contingency plan.

Obviously, investments have been made in new vessel capacity so it can be provided as a contingency plan. However, in cases where there are new needs because the vessels that are coming into the sector right now are filling existing responsibilities but there are still many gaps that exist across the country for that matter, I think it could certainly be utilized incrementally—industry platforms—to provide a cost-effective means with some good limited funding from government to make that work. I think it's a model that should be more closely considered in terms of a recommendation by the committee and certainly by the department.

We have raised it and there has been some interest in this. I'm not saying there's no interest, but there have been some challenges, ob-

viously, in getting over the hump and actioning some of this as well.

• (1235)

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

We will now go to Mr. Hanley, for five minutes or less, please.

**Mr. Brendan Hanley (Yukon, Lib.):** Thank you very much, Mr. Chair.

Thank you to all the witnesses for appearing. You have all from various angles, I think, today described how science is a method and not a person or a degree, and not a decision. Fundamentally, it's about careful and documented observation that is reproducible and transparent.

I liked the way that Mr. Bonnell described the importance of validation of surveys by fisher industry knowledge, because I think that helps to ground-truth the scientific method behind stock assessment.

My first question for Mr. Bonnell is actually not quite about that. It's about indigenous knowledge. We know that indigenous peoples have thousands of years of experience in fishing sustainably. Their insight is central to understanding how we nurture fisheries and helps to inform decisions regarding commercial fishing and prioritizing sustainability.

I'm wondering, with regard to Ocean Choice, whether you have a framework in place for indigenous consultation. Even if not, how can DFO support ensuring indigenous knowledge is included in commercial fishing?

**Mr. Carey Bonnell:** Thank you for the question. It's certainly one that I'm extremely interested in.

I started my career actually working with indigenous groups in Nunavut, with the Nunavut government back in 2000. I was very heavily involved through the land claim agreement process in Nunavut in terms of advancing science programming and advancing indigenous knowledge and considerations into the decision-making process. I think it's one area where the department has made some really strong strides. There is very active engagement of indigenous groups in all of it.

Certainly all the fisheries that we're involved in both in terms of the management review process and in terms of direct representation in the science review process, to my understanding at least, have a number of indigenous partnerships. As an organization, we work closely with our Innu colleagues in Labrador in the northern shrimp fishery, which we take great pride in. We have a great relationship.

Many of our associations today—I'm on the executive of the Fisheries Council of Canada—have very strong representation from the indigenous communities, particularly in the eastern Arctic. Their views are certainly heard around that table as well. I think it's an important topic. The reconciliation agenda is a very active agenda right now that we are all paying very close attention to. Certainly indigenous knowledge and indigenous stakeholders deserve a seat at the table, and direct representation and input into the decision-making process.

**Mr. Brendan Hanley:** Thank you. That's very apropos for today's National Indigenous Peoples Day.

I want to turn to Mr. Prevost. I'm very grateful that you're here. This is the first time I think in this series that we're hearing about fish being used as bait and how important that is to the overall sustainability of the crustacean industry. I'm hoping to see this reflected in our report.

I was also interested when you talked about the crustacean fishery as being very traditional. Of course tradition is so important to community investment in the fishery, continuation of the livelihood, etc., but on the other hand, there may be practices that are slower to adapt to modern reality.

I'm just wondering if you could comment on DFO's role, or potential role, in fostering culture change in adapting to the modern realities of stocks.

**Mr. Mark Prevost:** Thank you for the question.

I don't know if DFO really has done anything in that area. I fish lobster, crab, herring and mackerel. I fish the way I was taught. Nobody else has shown me benefits of doing it any other way. The only reason I got into the alternative bait business was that I just found it wasteful while I was fishing herring and mackerel. Trying to reduce output protein for input protein makes a lot of sense. It just seemed like such a waste.

We are finding that the people who are changing or have interest in alternatives to traditional bait are younger. It will probably be a few generations before people are willing to change.

I appreciate the question. Thank you.

• (1240)

**Mr. Brendan Hanley:** Thank you.

I believe I have 15 seconds left. I have a short question for Dr. Vascotto.

You gave a really good overview of the Facebook cable situation with Mr. Perkins' questions. Going back to that, was there a specific shortcoming of DFO that you could outline in about 10 seconds?

**Dr. Kris Vascotto:** Thank you for the question.

The big issue on our side was really one related to consultation and notice. There was no notification that this was happening. We were not engaged with the department to help guide the cable. It was basically a proponent talking directly to us to let us know that it was happening. Nothing else was communicated by the department to help us shape this so that it did not impact the industry or conservation values.

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

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

[*Translation*]

**Mrs. Caroline Desbiens:** Thank you, Mr. Chair.

I will turn, once again, to Mr. LeBlanc.

You talked to us about your coordination with DFO and the scientists for the protection of the lobster resource. You've indicated to us that it's been a positive experience on both sides.

Do you think that you could take part in a committee or a roundtable with DFO and the scientists in the field—I insist on this—to address all the problems facing the fishing industry?

For example, for herring and mackerel, there could have been predictability. Ten years ago, when we saw the resource decline, we could have done the same exercise as we did with lobster. If that had been done, do you think we would be where we are today?

**Mr. Leonard LeBlanc:** That is a very good question.

As you know, there are discussions in the context of an advisory committee on herring and mackerel. Science has indicated that these species are endangered. I have heard this at several meetings.

As Canadians, we have stopped fishing mackerel, but the Americans are fishing the same biomass. It's a really perplexing situation.

The committee is in place, but decisions need to be made more on the basis of science.

**Mrs. Caroline Desbiens:** So you are telling us that the Americans and the Canadians share the same resource. Although we stop fishing, the Americans continue, which means that this will not have a positive effect on the recovery of the resource in the short term.

**Mr. Leonard LeBlanc:** As far as mackerel is concerned, it will cause problems. The resource will come back later rather than sooner.

**Mrs. Caroline Desbiens:** I'll give you the last word in the time allotted to me. What do you propose to us, in one sentence?

**Mr. Leonard LeBlanc:** Given the great precariousness of the resource, as the minister and the scientists have said, I would have liked to have had discussions with the Americans, who should have stopped fishing the same resource.

**Mrs. Caroline Desbiens:** Thank you, Mr. LeBlanc.

[*English*]

**The Chair:** Thank you.

We'll now go to Ms. Barron for two and a half minutes.

**Ms. Lisa Marie Barron:** Thank you, Chair.

I'm going to change up my question here, last minute. I hope this wasn't already answered.

I'm wondering, Mr. LeBlanc, if you can expand upon.... In your opening statement to us, you mentioned that DFO's decision to close the herring and mackerel fishery this spring without a science-based rebuilding program bewildered many in the industry.

Can you expand a bit on the importance of the science-based rebuilding programs when making decisions within fisheries?

**Mr. Leonard LeBlanc:** From my perspective, everything should be science-based when it comes to a natural resource. That's where it should come from, not the amount of money a fisherman should or shouldn't make. It should be science-based. I've always said, if you take care of the fish, the fish will take care of you. That was my basis for how I approached going to meetings.

When the decision came down on both the herring and mackerel, it came down at the eleventh hour with very little notice to industry. In fact, it was probably minutes before the decision came. We asked, "Where's the rebuilding plan?" They said, "We'll meet in the fall and talk about a rebuilding plan."

If you have a crisis in a fishery, you don't wait. If you get sick tomorrow, you don't wait six or seven months to go to see your doctor. You go immediately. You go as soon as you're sick. It should have been the same thing for these two resources that they were closing. They should have brought industry together immediately to say, "We have a problem. Let's acknowledge it," and then say, "We need to have rebuilding now and we need to have it now," not in six months.

● (1245)

**Ms. Lisa Marie Barron:** That's a great example. Thank you.

Continuing on, Mr. LeBlanc, you spoke about the collaborative work that happened. You used an example of the harvesters and DFO, and you spoke about the process with the Pictou Landing First Nation, the provincial government and DFO.

Can you share a bit about how DFO can help promote such collaborative approaches and the benefits of these approaches? This is expanding on Mr. Hanley's question.

**Mr. Leonard LeBlanc:** I think DFO should use examples of where it's working and build on that. It seems like the department, when it's planning to have a scientific exercise with industry and first nations, wants to reinvent the wheel. There are processes that have been there, like the lobster node in the gulf, for example, that have had great success.

We have first nations as members of our association. When we did our plan and took our fishery from 9,000 pounds of lobster to 55,000 pounds of lobster this year, they voted with us. They were part of the entire process and analysis. That's how you have inclusion.

I think DFO sometimes gives itself more work, when the work is already done and the process is already there.

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

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

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

Thank you to the witnesses.

I'll start off with Mr. Prevost, if I can. In your opening comments, you mentioned that it's challenging to try to assess the size and scope of the bait industry, and that there are likely significant underestimates in the mackerel used for bait.

Could you elaborate further on that and describe where the gaps may be in the assessment of the catch?

**Mr. Mark Prevost:** I'm not 100% certain. The gaps in the accurate data.... I got that from DFO. As far as the undeclared catch goes, I know it came at the eleventh hour when they were shutting it down. A lot of people saw it coming. The freezers are full, including ours. There was a pretty big heads-up.

Because we don't have a real process pertaining just to bait, this opens another market for undeclared catch. Whatever the fishermen catches, as long as they're using it for bait, it's not recorded. If we're using 700 million pounds for bait, that's a pretty big gap, as far as I know.

**Mr. Mel Arnold:** The gap in the recording of catch that's taking place for bait.... It's not recorded as being out there, basically.

**Mr. Mark Prevost:** Exactly.

I'm not sure how a lot of the.... I'm a pretty simple guy. A lot of the stuff coming in from other countries and imports from the U.S.A., I don't know how it's declared there. If it comes to Canada as bait, we wouldn't know what species it was.

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

To you and Mr. LeBlanc, to what extent are illegal, unreported and unregulated fisheries affecting how science is determined or directed, and then used within the department?

I'll start off with Mr. LeBlanc. Perhaps you could answer that one.

**Mr. Leonard LeBlanc:** I'm sure it's a problem when you have unregulated fisheries, and it's happening in a few of the fisheries that I know of.

Since we're talking about bait, there's no problem with unregulated herring bait fisheries now, because there are none. They've been closed, so that's not an issue. Mind you, there are still unregulated and illegal activities happening in some fisheries that, I'm sure, DFO science has to apply a percentage to when they do their calculations. They've given estimates in the past. I think that's their scientific approach.

● (1250)

**Mr. Mel Arnold:** They open with what they consider to be the allowances or the allocation for IUU fisheries.

**Mr. Leonard LeBlanc:** That's correct. They have a percentage that they'll apply to their formula.

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

Mr. Prevost, do you have anything to add?

**Mr. Mark Prevost:** No, thank you.

I think a chain of custody, when it comes to bait, would probably eliminate a lot of the undeclared catch and help DFO gather more accurate data.

**Mr. Mel Arnold:** I'm going to pass the rest of my time to Mr. Perkins.

Thank you.

**Mr. Rick Perkins:** My question, Mr. Chair, is for Mr. LeBlanc.

Without a robust seal harvest management plan and with the decision to close the mackerel and herring fisheries, are we facing yet another 30-year-plus moratorium on that fishery as well? That's in the absence of any kind of management plan for mackerel and any kind of management plan for seals.

**Mr. Leonard LeBlanc:** I was there when the minister made the decision to shut the groundfish fishery. I was on the water, fishing. Back then, they said they'd close it for five or, maybe, 10 years max, and then it would rebound and come back. It didn't, because they didn't control the seal population.

Now the seal population is so high that it's very likely that the southern gulf cod will not come back. The seals have been allowed to eat fish for so many years. In fact, for quite a few years, they've been fishing a bigger biomass than we've ever fished in any given year. That's a problem.

Now with the cod not being there, the target is going to be mackerel and herring. Yes, I agree with you. If we don't do something immediately with the seals, the rebuilding plan for the herring and the mackerel is going to be very limited.

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

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

**Mr. Mike Kelloway:** Actually, Mr. Chair, Serge Cormier is going to take my spot.

**The Chair:** Okay. We'll go to Mr. Cormier.

**Mr. Serge Cormier:** Thank you, Mr. Kelloway.

Thank you, Mr. Chair.

Mr. Prevost, my dad was also a fisherman all his life. I went out fishing with him a lot. He's retired now, but I still enjoy it, every time I have a chance to go with my cousin, who now owns the boat.

I want to go back to what Mr. Arnold was saying. You said that 694 million pounds is the estimate for bait needed in Atlantic Canada, including Quebec. Do you know what percentage of that amount—just an estimate—comes only from herring and mackerel from our waters? Do you know what I mean?

**Mr. Mark Prevost:** I would be guessing. I would say half or more.

**Mr. Serge Cormier:** You mean that 300 million pounds of this bait comes from our area waters. Is that right?

**Mr. Mark Prevost:** Yes. Even if you look at the past and you look at that usage, what's coming in from other countries and what the quota was, we're using more for bait than what was on the quota. You know the recordings are not accurate.

**Mr. Serge Cormier:** You said the recordings are not accurate. Can you elaborate on that, please?

**Mr. Mark Prevost:** If DFO says, "This is the quota for mackerel and herring", and they can assume that we're using 700 million pounds for bait and the quotas are less than that, then there are definitely some gaps in the recording of data.

**Mr. Serge Cormier:** They're recording when the fishermen arrive at the wharf and what is reported.

**Mr. Mark Prevost:** Yes.

**Mr. Serge Cormier:** Your company is called Bait Masters and you're telling us something about the bait we import. This is a little troubling for me to hear. You said there's no risk assessment or management whatsoever for validating imported bait—let's say from Japan or Norway.

Doesn't the CFIA take care of this and make sure that, if we import bait—let's say herring or mackerel from Japan—it knows whether it's a good fit for our water, with no disease?

**Mr. Mark Prevost:** No, there are no regulations for bait. We're an alternative bait manufacturer, but we deal in straight bait. We're buying lobster tonight and selling bait. We have to do our own risk assessments. I know if bait passes Maine's Department of Marine Resources' qualifications in the U.S., I'm safe to sell it in Canada. We're the only company doing that. We're a little ahead of regulations in the alternative bait game, so we're following their direction.

● (1255)

**Mr. Serge Cormier:** Were you aware of some fishermen...? We heard a couple of times, on this committee, about Asian carp and the possibility of using it for bait. Are you aware of that?

**Mr. Mark Prevost:** Yes, and I know it wouldn't pass a risk assessment. Most of the species of Asian carp wouldn't. If I were to grind it up, put it in an alternative bait and try to pass it through a risk assessment to meet the Department of Marine Resources' qualifications and sell it in the U.S.—I export a lot of bait—it wouldn't meet it.

We don't want to be the company that introduces Asian carp to these waters. Unless somebody says it's safe and okay.... Of course, a study would have to be done to see if it actually works to catch lobster.

**Mr. Serge Cormier:** Is your company trained to develop some other kind of bait? I know the MFU, for example, is trying to develop synthetic bait—if I can say that—within its organization. Are you also trying to develop that?

**Mr. Mark Prevost:** I would say that 20% of our revenue is now dedicated to research and development, but it's very costly. Studies need to be done, along with proof of concept. We have a lot of fishermen as investors or involved in some of the testing. I think we're at 480 different trials.

There are other baits: acoustic bait technology and light technology. We're into all of it and it's going to take some time. We're definitely not in an overfunded industry. The alternative bait business is not attractive to any funders—government or non-government. It's a little different.

**Mr. Serge Cormier:** I think we should.

I'm glad you said, at the beginning, that fishermen don't want to try something else, because they have more confidence in.... If you'd given my father something other than herring or mackerel, he would not have put it in his trap.

Do you think we will get there? Will we find a solution for synthetic bait that will work for—

**The Chair:** I'm sorry, Mr. Cormier, but your time has gone over.

We'll finish up now with Mr. Small for five minutes or less.

**Mr. Clifford Small:** Thank you, Mr. Chair.

I have one more quick question for Mr. Bonnell.

In terms of stakeholder input in fishery science, do you have any examples of suggestions industry has put forward to DFO but were shrugged off?

**Mr. Carey Bonnell:** Yes, I could certainly cite an example or two. There are many times that we align very well with DFO, but there are times when those things happen. The 3Ps cod would be a classic example, I suppose. This is where, for a number of years, we were following a biomass of our year class of cod coming through. It was the basis upon which we established the Marine Stewardship Council certification probably well over a decade ago now.

DFO developed a new assessment model, I think it was late 2019 into 2020. The advisory process new assessment model completely recast the history of that stock. Basically we went from a stock that was at 150% of Blim to 0.24%, I think, that year, if I remember correctly. Basically, all the advice we had received for years leading up to that, certainly with the new assessment model, was all false. That year class didn't exist, or generally didn't exist, but we knew it did exist.

We pushed back hard on the new assessment model. We flagged a lot of issues that I wouldn't have time to get into here today. To the credit of the prior minister, she did do an independent review of the new assessment model. We thought the parameters were far too narrowly defined, and no changes, still today, have been made.

It's an example of an area where we felt that industry views, our perceptions, our on-the-water experience, what we were seeing in terms of catches and the reputation, obviously, of our.... We had a fishery that was MSC-certified, and the retrospective on that model basically would have indicated that the stock was in the critical zone, according to the new assessment model at the time, which was a reputational hit for everybody, really, associated with that.

That's an area that I would cite as one example we remain concerned about. We'll continue to flag this at the advisory table and look for improvements and changes as time goes on.

• (1300)

**Mr. Clifford Small:** Thank you, Mr. Bonnell.

Staying on the topic of stock assessments, my question is for Mr. Vascotto.

Mr. Vascotto, do you see a trend developing in stock assessments in terms of input of ENGOs such as Oceans North, for example? Is there a trend in the change in who's having input on stock assessment versus the input of industry stakeholders?

**Dr. Kris Vascotto:** Yes, it is quite clear over the recent history of the last, I would say, five years or so, that we've seen an increasing shift away from those industry stakeholders who were directly linked to the resource and their being replaced by ENGOs who might come from well-educated backgrounds but don't necessarily have that tangible link to the boat, to the wharf or to the fishery itself. The level of input provided is coming in at a different level, but there's definitely been a move away from the inclusion of the harvesting sector directly in these tables and a move towards the inclusion of the ENGO representatives.

**Mr. Clifford Small:** Again, Dr. Vascotto, are you concerned with the changes in assessment models that are putting fish stocks further into the critical zone than they previously were?

**Dr. Kris Vascotto:** I have to harken back to Mr. LeBlanc's input here, which is that we can't only be happy when science says something is going up. Really, this is about getting the right answer and getting a consistent answer. Whether a stock is appearing better or a stock is appearing worse, that is not the concern as much as it is making sure that we have predictability moving into the future about what that stock is going to do during this period of profound change.

There are some trends in some areas where we're seeing fairly negative perspectives being provided on stock status, and that is partly linked to how these assessment models are being produced, the knowledge base that's being used to inform them and whether we get a chance to pull them apart to make sure they're giving us a real signal as opposed to noise.

**Mr. Clifford Small:** Thank you.

My last, quick question here is going to be to Mr. Prevost. It's on Asian carp. I heard you reference that, I think, last year Maine used seven million pounds of Asian carp, a dead, frozen product. Do you have concerns about introducing Asian carp into the Atlantic Ocean, just given the fact that it's dead?

**Mr. Mark Prevost:** I do. I think some studies would have to be done, risk assessments and whatnot. We don't want to be the company that introduces something that has a negative impact on the environment right now. From what I understand from talking to fishers in Maine, it's really not very good bait. Not everything works to catch lobsters. Believe me, fishermen would welcome Asian carp if it caught lobsters or crab; however, it appears that it doesn't. It might be a good filler, but that's it.

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

That brings an end to our meeting today.

I want to say a big thank you to our witnesses who took the time out to share their knowledge with the committee today. It's greatly appreciated.

A big thank you to everybody involved making today's meeting a success: interpreters, clerks, analysts and everybody behind the scenes.

I want to let everyone know that there will be no meeting on Thursday as we didn't line anything up. If you recall, we mentioned last meeting, the meeting before and probably the meeting before that, that we wouldn't book anything for Thursday as it is the last day the House is supposed to sit.

Of course, we could be swamped with votes or we might have no votes. We don't know. It's too late to line up witnesses. Of course,

everything else being what it is, there will be no meeting on Thursday, so I hope everybody has an opportunity to have a restful, enjoyable, productive summer. I hope to see everyone back in good form in September.

**Mr. Mel Arnold:** I was hoping to have lunch on your account.

**The Chair:** If you can make that work, buddy, you're welcome to it. Actually, you can have lunch on us today.

Go ahead, Ms. Desbiens.

[*Translation*]

**Mrs. Caroline Desbiens:** I just want to thank you, Mr. Chair, for a very exciting, orderly and disciplined year.

I wish you a good summer, as I do to all our colleagues, aides, associates and interpreters.

Have a good rest.

Thank you, Mr. Chair.

• (1305)

[*English*]

**The Chair:** The meeting is adjourned.

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