

# Overheard at the Standing Committee on Fisheries and Oceans: Science At The Department of Fisheries and Oceans

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## Meeting Summaries

Meeting 1 (26 April 2022)	1
Meeting 2 (28 April 2022)	3
Meeting 3 (5 May 2022)	6
Meeting 4 (12 May 2022)	8
Meeting 5 (2 June 2022)	11
Meeting 7 (14 June 2022)	16
Meeting 8 (21 June 2022)	19
Meeting 9 (7 October 2022)	20
Meeting 10 (18 October 2022)	22

### [Meeting 1](#) (26 April 2022)

In this meeting, the Standing Committee began their study on the science at the Department of Fisheries and Oceans. Invited witnesses provided opening remarks, and then received questions from present Members of Parliament (MPs).

The witness list was as follows:

- Bernard Vigneault (Director General, Ecosystem Science Directorate, DFO)
- Kristana Worcester (Director, Strategic Science Planning and Program Integrity, DFO)
- Matthew Hardy (Regional Director, Science, Gulf Region, DFO)
- Andrew Thomson (Regional Director, Science, Pacific Region, DFO)
- Kristi Miller-Saunders (Senior Research Scientist, DFO)
- Judith Leblanc (Science Advisor, DFO)

The key points raised during the witness' opening remarks were:

- **Bernard Vigneault** stated that “science integrity is critical to the decision-making process,” and that science advice is generated transparently at the DFO, using the Canadian Science Advisory Secretariat (CSAS). This is based on the principles of evidence-based peer review, and includes reviews from science experts from

government and academia, as well as Indigenous communities, environmental non-governmental organizations and industry experts.

Here are some of the key points raised during the witness questioning period:

- In response to **Rick Perkins'** (CPC) question about whether the Minister of Fisheries, Oceans and the Canadian Coast Guard is presented with science for every single option, **Vigneault** stated that they systematically provide science advice to support the memo for decisions for the minister, and that the minister has full authority to make decisions.
- **Rick Perkins** (CPC) raised questions about a leaked letter written by Judith Leblanc (in their capacity as a union steward and consultation team president for the Professional Institute of the Public Service of Canada), but **Leblanc** declined to answer to maintain the confidentiality of the discussions taking place with the department. [Note: The letter in question can be [found here](#).]
- **Lisa Marie Barron** (NDP) raised questions about the reasons behind why a 2012 report about *Piscine orthoreovirus* (PRV) in B.C. open-net fish farms was not publicly released for over ten years. **Kristi Miller-Saunders**, a report co-author, stated that the “delay was due to a disagreement between me and the industry vets on the interpretation of the science...there needs to be an agreement on the interpretation of the science before the report can be put in, or before a manuscript can be prepared. That is perpetual over the last 10 years, despite the fact that the agreement is no longer active.” [Note: Learn more about the [report here](#).]
- **Lisa Marie Barron** (NDP) asked whether there was a potential for conflicts of interest to occur in the current DFO peer review process. **Miller-Saunders** stated that there is now a new conflict of interest policy (established in 2021) for the Canadian Science Advisory Secretariat process, which may resolve some of these concerns.
- In response to **Ken Hardie's** (LPC) question about who sets the parameters of studies conducted by DFO, **Vigneault** stated that this is led and decided on by the research scientists of the department. Vigneault added that there are priorities to be addressed through research or monitoring proposals. These priorities may come from specific proposals to the Government of Canada, or are adjusted in consultation with client stakeholders, which are then communicated to the research community.
- **Caroline Desbiens** (Bloc) asked whether there are sufficient material resources and budgets to conduct timely and impactful studies. **Millers-Saunders** stated that DFO funding is largely based on competitive proposals. Millers-Saunders has principally funded their program through non-DFO funding, as they “have better success in generating funds to do my research with outside granting agencies than I do inside the department.”
- **Bob Zimmer** (CPC) asked witnesses **Miller-Saunders** and **Leblanc** whether it surprised them that the DFO Minister disregarded sound science. Leblanc stated that “once the advice is submitted, the decisions rest with management, not with me in my role as science advisor. My 26 years of experience in the department have taught me to understand my area of influence. I can have some influence, but the decision is not mine.” Millers-Saunders responded with “not in my experience”, and stated that “we have

very little control...or a limited amount of input on what science moves forward to the minister, or even to upper managers in Ottawa, and how they utilize that science.”

Next, the Standing Committee called upon:

- Mona Nemer (Chief Science Advisor)

The key points raised during the witness’ opening remarks were:

- **Mona Nemer** shared three observations — that it is important for: 1) government scientists to provide high-quality research that directly informs legislative, regulatory or policy decision-making. This is why the Office of the Chief Science Advisor created a model scientific integrity policy for departments to adapt for use; 2) departments to have structured mechanisms for engaging and evaluating external research; and 3) scientists and policy-makers to understand each other’s imperatives. Nemer also referred to past work: in 2018, upon a request from the Minister of Fisheries and Oceans, Nemer led an independent expert panel to provide recommendations on the appropriate use of scientific evidence in aquaculture decision-making, [resulting in a report](#), titled *Report of the Independent Expert Panel on Aquaculture Science*, outlining several recommendations, including the appointment of a Departmental Science Advisor.

Here are some of the key points raised during the witness questioning period:

- In response to **Caroline Desbiens**’ (Bloc) question about what is the most pressing issue, **Nemer** stated that in terms of science advice, what is concerning is that sectors, institutions and various departments “work in isolation, when the problems are extremely complex.” Nemer also noted that it is “becoming increasingly important to ensure that there are no gaps in our knowledge.”
- In response to **Mel Arnold**’s (CPC) question about progress made in implementing recommendations within the *Report of the Independent Expert Panel on Aquaculture Science*, **Nemer** stated that the position of an independent departmental science advisor was created, and that “a number of [recommendations] are still outstanding.”

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## **Meeting 2** (28 April 2022)

In subsequent meetings, the Standing Committee continued their study on the science at the Department of Fisheries and Oceans.

The witness list was as follows:

- Jesse Zeman (Executive Director, B.C. Wildlife Federation)
- Charlotte K. Whitney (Program Director, Fisheries Management and Science, Central Coast Indigenous Resource Alliance)
- Alejandro Frid (Science Coordinator, Central Coast Indigenous Resource Alliance)
- Michael Staley (Biologist, Fraser Salmon Management Council)
- Andrew Bateman (Manager, Salmon Health, Pacific Salmon Foundation)

- Brian E. Riddell (Science Advisor, Pacific Salmon Foundation)
- Greg Taylor (Consultant and Fisheries Advisor, Watershed Watch Salmon Society)

The key points raised during the witnesses' opening remarks were:

- **Jesse Zeman** shared how DFO's peer-reviewed process was undermined for the endangered interior Fraser steelhead species. Zeman stated that DFO refused to provide access to records related to the species, and that if this issue was to be further pursued, the Office of the Information Commissioner of Canada advised applying to the Federal Court for a review. Zeman stated that the B.C. Wildlife Federation is losing trust in DFO. Zeman is not concerned about the DFO scientists' ability to conduct science, but is concerned with "decision-makers and senior managers' willingness to edit, suppress and hide that science." Zeman recommended "tear[ing] down DFO with a full restart and [to] separate DFO management from DFO science, or we will lose what remains of our Pacific salmon and steelhead."
- **Charlotte K. Whitney** stated that "there are often disconnects between science advice and management decisions, and between stated policies and what occurs in practice", resulting in "management decisions that maintain a status quo rather than applying the best available science." Whitney made the following recommendations: 1) do not compromise inclusiveness in the Canadian Science Advisory Secretariat process in order to rush either stock assessments or management decisions; 2) engage DFO scientists in addressing climate uncertainties in stock assessments and questions about ecosystem-based management; 3) abandon tokenisms about the application of Indigenous knowledge; and 4) honour, respect and implement existing fisheries and oceans management co-governance agreements that are inclusive of Indigenous knowledge, ecosystem needs and precautionary thresholds.
- **Michael Staley** stated that in 2019, the signing of the Fraser Salmon Collaborative Management Agreement between member nations and the Minister of Fisheries addressed challenges in the management of Fraser salmon on a migratory route scale. Staley stated that there have been challenges in implementing the processes in this agreement, due to a lack of an implementation plan, and of collaborative decisions. Staley stated that the science and technical capacity of First Nations and their organizations must continue to be built so that First Nations can take their rightful role in co-managing the fish and fisheries resource in a collaborative way with DFO.
- **Andrew Bateman** stated that "DFO's current science advice aims are laudable on paper, but principles and guidelines are only as good as their implementation." Bateman shared examples of the pitfalls in DFO's current approach. Bateman noted that Canadian Science Advisory Secretariat (CSAS) meetings can apply social pressure on dissenting voices, that international participants may abstain from consensus votes, and that there is no mechanism to address errors once consensus has been achieved. Bateman stated that the current CSAS process needs to be fixed, as it is "entwined with the management preferences, influences and aspirations of the department." Bateman recommended that "Canada should implement a truly independent science advice body to directly advise decision-makers and recommend further research without being subject to vested interests inside or outside DFO."

- **Greg Taylor** stated that it is nothing new that “the fisheries management and the minister’s office often fail to incorporate science or national policies informed by science in their decisions,” but “what has changed over the course of my 40-year career is that the risks to our fisheries from decisions inconsistent with good science are immeasurably greater.” Taylor noted that Canada has never had an obligation to ensure decisions are consistent with a science-based management framework, and that none of the seven key policies within Canada’s sustainable fisheries framework have been implemented when it comes to west coast salmon fisheries. Taylor recommended that: 1) DFO should implement national policies, including an independent body reporting on the department’s progress and provide recommendations where progress is lacking; and 2) an independent science body should develop science-based performance measures founded in science and policy for every fishery, with an evaluation every four years.

Here are some of the key points raised during the witness questioning period:

- In response to **Mel Arnold’s** (CPC) question about whether the CSAS process is as robust and credible as peer-review processes of the scientific community outside of DFO, **Bateman** stated that “in my opinion, absolutely not...it needs to be fixed or completely replaced.”
- **Ken Hardie** (LPC) asked how to deal more effectively with the whole issue of duelling science when it comes to these decisions. **Zeman** stated that the challenge is that management oversees, and in a sense, trumps science, and that the minister is currently not receiving the science provided by the department. Zeman stated that “the science has to be clear and unfettered, whether DFO management likes it or not,” and that an arm of DFO is necessary that provides science that’s shared with everyone, not filtered through management.
- In response to **Ken Hardie’s** (LPC) question of what the Minister should consider when it comes to making decisions that can either affect stock or community livelihood, **Whitney** stated that ministerial discretion and decision-making should be directly informed by science, and that the reality is that advisory groups have undue influence on the final decision that is realized in management.
- **Caroline Desbiens** (Bloc) asked whether an ombudsperson or auditor general who would promote scientific opinion to the Minister could be a solution. **Zeman** agreed that such a role would add value, but that the fundamental issue is to remove DFO management from science. Zeman noted that it was not an issue of competence among DFO scientists, but an issue of structure within DFO. **Taylor** noted that it is important to involve stakeholders, but that the processes lack transparency, and independent monitoring or oversight. Taylor also noted that First Nations are currently at a disadvantage and need more resources and independence, instead of being dependent on a “broken DFO system.”
- In response to **Ken Hardie’s** (LPC) question about when it may be appropriate that DFO science is not disclosed, **Zeman** stated that there is no appropriate time, and that “science is what leads us to good decisions. Not disclosing science is what leads us to bad decisions.”

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### Meeting 3 (5 May 2022)

The witness list was as follows:

- Gideon Mordecai (Research Associate, Institute for the Oceans and Fisheries, University of British Columbia)
- Greig Oldford (PhD Candidate and Scientist, University of British Columbia)
- Dominique Robert (Professor and Canada Research Chair in Fisheries Ecology, Institut des sciences de la mer, Université du Québec à Rimouski)
- John Reynolds (Chair, Committee on the Status of Endangered Wildlife in Canada)
- Josh Korman (Fisheries Scientist, Ecometric Research Inc.)
- Kathryn Moran (President and Chief Executive Officer, Ocean Networks Canada)

The key points raised during the witnesses' opening remarks were:

- **Greig Oldford** shared their experience of conducting PhD research at the University of British Columbia, which is in part funded by DFO. Oldford noted that in order to understand how complex socioecological systems work, it is important to implement an ecosystem approach to management which casts a wide net to “include Indigenous knowledge, fisher knowledge, local knowledge, citizen science and other valued sources as early in the process as possible.”
- **Gideon Mordecai** shared examples of how DFO has failed to meet its high standards for scientific integrity, and that its science advice is not always accurate, reliable or free from interference. Mordecai recounted how DFO scientist Kristi Miller-Saunders' work found that farmed Chinook salmon were suffering from *Piscine orthoreovirus* (PRV), but DFO managers undermined and ignored Miller-Saunders' findings, and concluded that farms pose minimal risk. Mordecai noted that DFO often uses restrictive definitions, cherry-picks data to fit a narrative, and relies on the selection of industry-funded lab studies. Mordecai recommended establishing an independent fisheries science body, that would be able to review and weigh evidence, to ensure that the assessment and summary of scientific information to decision-makers is free from vested interests.
- **Dominique Robert** noted that while DFO researchers are highly qualified, the quality of available data varies greatly between stocks. Basic measures are sometimes unknown. Robert recommended that the DFO needs modern research platforms to better fulfill its resource assessment mandate, and that the quality of the recommendations that scientists can make is directly dependent on the data available. Robert recommended accelerating the implementation of an ecosystem approach to fisheries management in Canada, and that upstream of management decisions, economists and sociologists should be involved in the scientific process to integrate the economic and social context of fisheries. Robert also recommended the establishment of a decision-making structure that would include a ministerial obligation to make decisions based on the findings of scientific stock assessment processes, with no room for discretionary intervention.
- **John Reynolds** noted that there has been a pattern of denial of harm caused to wild salmon by salmon farming, suggesting that “policy preferences have been affecting

science advice rather than the other way around.” Reynolds shared their experience as the Chair of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and how Committee members’ independence is enshrined in the Species at Risk Act. Reynolds noted that the key to their success was to follow a directive to provide “unbiased, independent science advice.” Reynolds recommended that a similar directive could run from science to management at DFO, where management objectives are prohibited from influencing science, documents involved in decision-making are transparently shared, and checks and balances are implemented.

- **Josh Korman** reflected on their experience in participating in DFO’s Canadian Science Advisory Secretariat process, noting that the review process of working papers is quite rigorous, and that they have not observed unsupported bias from management, nor undue influence from third-parties. Korman noted that there was substantive DFO meddling (specifically, a fundamental conclusion was altered) in the conversion of a recovery potential assessment report into a scientific advice report for the interior Fraser steelhead. Korman recommended that a more transparent process is necessary, where DFO fishing decisions can be evaluated publicly to determine if the decisions are consistent and compatible with existing harvesting and conservation policies.
- **Kathryn Moran** shared work at Ocean Networks Canada, including capturing and providing essential ocean variables to DFO. Moran called for Canada to leverage assets across federal departments and agencies, and in partnership with ocean infrastructure operators across coasts, develop a policy similar to the U.S. national ocean policy.

Here are some of the key points raised during the witness questioning period:

- **Mel Arnold** (CPC) asked about how DFO plans and handles science meant to support departmental and ministerial decisions. **Mordecai** noted that there are several examples of science not reaching management decisions due to a block. **Korman** noted that there is inadequate funding to properly monitor different salmon streams; even with specific directives to collect better data, a better stock assessment has still not been carried out. Korman notes that this is a common theme: “promises are made to do better science and, in looking at that in the fullness of time, you see that often that doesn’t work out.”
- **Mel Arnold** (CPC) asked about how the system can be improved. **Korman** recommended that a firewall or independence is necessary to confirm that the science is being translated into management advice. In a similar question from **Ken Hardie** (LPC), **Mordecai** noted that by involving truly independent experts in the peer review process to mitigate undue industry influence, experts will be able to weigh different datasets and come to a conclusion, which recognizes the uncertainty involved. **Mordecai** also noted that “if we know the information is getting to a decision-maker, but they base their decision on a variety of other factors, we at least know that the science is being considered. That’s currently not the case, and I think that’s the root of the problem.”
- **Ken Hardie** (LPC) asked what science advice is possible to give to a minister, given uncertainties and many unknowns. **Reynolds** recommended the adoption of the precautionary principle, and to look at the weight of the evidence (e.g., to acknowledge uncertainty in a complex problem, but note where the weight of the evidence points to).

- In response to a question from **Caroline Desbiens** (Bloc), **Robert** confirmed that sociologists and economists are not present during stock assessments. As a result, the socioeconomic context is not adequately considered. Decisions can hurt communities.
  - To **Mordecai, Elizabeth May** (Green) asked: “what the heck would be the conflict of interest within the department that’s supposed to protect our fisheries and our coastline, which ends up deciding to have decision-based evidence making, instead of what we want, evidence-based decision-making?” Mordecai stated that the conflict is due to the duality of DFO’s mandate: “to obviously look after wild fish and fisheries, but also to regulate and promote the aquaculture industry. There will be cases where those things come head to head, and that is where the conflict comes about.”
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## **Meeting 4** (12 May 2022)

The witness list was as follows:

- Michael Dadswell (Retired Professor of Biology, Acadia University)
- Alexandra Morton (Independent Scientist)
- Tasha Sutcliffe (Senior Policy Advisor, Ecotrust Canada)
- Robert Chamberlin (Chairman, First Nation Wild Salmon Alliance)
- Stan Proboszcz (Senior Scientist, Watershed Watch Salmon Society)

The key points raised during the witnesses’ opening remarks were:

- **Robert Chamberlin** stated that the Canadian Science Advisory Secretariat “as a peer review secretariat has zero credibility with the first nation members of the First Nation Wild Salmon Alliance,” given that proponents and industry associations can participate from the beginning to the end of the process. Chamberlin called for the DFO environment to be analyzed and restored back to its original mandate of “actually working to protect the environment and wild fish for Canadians.” Chamberlin noted that 90% of 203 B.C. First Nations rely upon wild salmon: it is a staple traditional food that is hard to attain, and this is a case of rights (i.e., Canada’s constitutional protection of Indigenous rights) versus the privilege of a license. Chamberlin noted that “the environment, wild salmon, First Nations and the citizens of Canada deserve far better than what we are experiencing today.”
- **Stan Proboszcz’s** testimony shared examples of suppression of science by DFO to protect the salmon farming industry at the risk of wild salmon. This includes examples of “obfuscation, cherry-picking and misdirection by some in DFO at the expense of precautionary action to conserve wild salmon.”
- **Tasha Sutcliffe** stated that the Pacific region fisheries face several challenges, and that science is instrumental in identifying, monitoring and resolving these issues. But to prioritize activities and leverage findings, Sutcliffe stated that a policy framework is necessary, with clear objectives across the spectrum of societal priorities. “Where do we want to go? What are we measuring success against?” Sutcliffe noted that existing language often revolves around economic prosperity and conservation, but that we can



do better at defining a policy framework that identifies clear objectives for social, locally economically relevant and cultural outcomes. Sutcliffe stated that recent work from the Canadian Fisheries Research Network (CFRN) has developed a framework articulating ecological, economic, socio-cultural and institutional or governance pillars. This can be used to ensure that decision-making has the potential to achieve conservation outcomes and maximize societal benefits.

- **Alexandra Morton** stated that most wild salmon in southern British Columbia are inoculated with pathogens from industrial aquaculture, and shared examples of how DFO has not responded appropriately. Morton shared the following recommendations: to issue conditions of license that provide relief to wild salmon, form a non-governmental board of scientists to monitor DFO's response to science, collaborate closely with First Nations, and, as recommended in the Cohen commission, create a regional director of wild salmon with a division of scientists using genomic tools to identify "choke points" that are killing wild salmon.
- **Michael Dadswell** reflected on their Canadian Science Advisory Secretariat experience as a past DFO employee, noting that the handling of the different interpretations of scientific evidence and uncertainty in the process had been a sore point. Dadswell stated that differing opinions on data were contradictory to DFO policy, and were often unwelcome and ignored by the Canadian Science Advisory Secretariat.

Here are some of the key points raised during the witness questioning period:

- In response to **Ken Hardie's** (LPC) question about how to best establish a regional director for salmon, and whether it should be situated outside of the DFO, **Morton** said that both may have to happen, as a DFO watchdog is necessary to ensure science is getting through. Morton also noted that aquaculture is thriving yet wild salmon are collapsing, and stated that wild salmon need advocates within DFO.
- In response to **Caroline Desbiens'** (Bloc) question about how social science could contribute to DFO's decision-making, **Sutcliffe** stated the following would be helpful: socioeconomic data, such as equitable distribution of benefit; social data, such as the ability to access resources, community relationships, traditions and knowledge; and governance-related items, including transparency and access to information.
- In response to **Caroline Desbiens'** (Bloc) question about how predictability can be improved given the "draconian" DFO decisions, **Morton** stated that building a better pathway between science and the minister is needed. In the case of wild salmon, Morton noted that there have been strong warnings, but these have been suppressed, so a department and a director of wild salmon within DFO would help provide clarity to all sides of this issue.
- **Mel Arnold** (CPC) asked about how the Government of Canada should approach scenarios where Indigenous rights for different First Nations appear to be at odds. **Chamberlin** recommended that the Crown "balance the impacts and the number of nations' rights that are being infringed upon, against the few jobs and the very small number of First Nations that are supportive of this industry."
- **Mel Arnold** (CPC) asked **Chamberlin** to expand on earlier comments regarding the lack of objective science at the DFO. Chamberlin spoke about the CSAS in relation to

open-net cage fish farms, noting that there is no objectivity when proponents, fish farm companies, and stakeholders in multi-industry associations are brought in, can select people who they are comfortable with to develop a terms of reference, and who will review science and develop a paper for peer review. Chamberlin noted that this would be unacceptable to Canadians if a different industry was picked, like tobacco. Chamberlin recommended moving to an independent science stream, in addition to DFO, to enable shared methodologies and sampling.

- To **Morton, Elizabeth May** (Green) asked whether it was better to “cut the rot out” and get rid of the conflict of interest, rather than adding layers of new voices, such as a director of wild salmon, and trying to get “real science.” **Morton** stated that because of past access to information requests, they are aware of where the “rot” is, and that a lot of the worst players have left. Morton noted that “the ones holding the ball now are riding the coattails of a long history of deception of the B.C. public,” and that they should be reassigned. Morton noted that this is a huge disservice, as this is extraordinary science being paid for by taxpayers, and “has been locked in a room, with tape put over the mouths of these scientists.”
  - In response to **Lisa Marie Barron’s** (NDP) question about the importance of DFO being able to provide effective oversight at fish farms, **Morton** noted that DFO is prohibited from attending a farm during a mortality event to prevent the spread of disease, even though industry staff are still visiting these farms. Morton noted that DFO has to be on these farms, and it cannot be through a group that is tasked to promote aquaculture.
  - To **Sutcliffe, Brendan Hanley** (LPC) asked whether the issue within DFO is a case of process, structure or culture, and what immediate recommendations could be carried out. Sutcliffe responded by saying that it is a systemic issue. Capacity and resources are necessary to develop a scientific framework, but there are fundamental approaches within the department that underscore culture. Sutcliffe noted that what the department considers a socio-economic analysis is shallow, and there’s a need to rebuild the approach to DFO science. Sutcliffe also emphasized the need for independence and transparency in the process.
  - **Clifford Small** (CPC) noted that it’s unclear what is really destroying the B.C. salmon industry and wild salmon populations, and asked: “who’s the real bogeyman here?” **Chamberlin** responded saying that there’s a group of bogeyman, and that we need to identify all of them, and reduce them by acceptable means to protect wild salmon. Chamberlin noted that we don’t have protection for wild salmon today, but only failed mitigation plans.
  - **Elizabeth May** (Green) asked whether the following proposal had merit in resolving conflicts of interest: if aquaculture was removed from DFO’s mandate, and instead placed in Agriculture and Agri-Food. **Dadswell** noted that this is common practice in other regions, such as Europe and North Africa. **Morton** stated that it’s important to get industry out of the ocean, otherwise this would remain in deadlock. Morton agreed with **May’s** proposal that moving industry to land or closed-containment, and giving aquaculture to agriculture and food production may work.
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## Meeting 5 (2 June 2022)

The witness list was as follows:

- Mark Prevost (President, Bait Masters Inc.)
- Wally MacPhee (Vice-President, Bait Masters Inc.)
- Christina Burridge (Executive Director, BC Seafood Alliance)
- Keith Sullivan (President, Fish, Food and Allied Workers - Unifor)
- Aidan Fisher (Biologist, Lower Fraser Fisheries Alliance)
- Melanie Giffin (Marine Biologist and Program Planner, Prince Edward Island Fishermen's Association)
- Jean Côté (Scientific Director, Regroupement des pêcheurs professionnels du sud de la Gaspésie)

The key points raised during the witnesses' opening remarks were:

- **Christina Burridge** stated that: 1) the Canadian Science Advisory Secretariat process should be improved; 2) DFO science has insufficient resources to support fish harvest management; and 3) it is dangerous when ministers ignore science in favour of their own views. Burridge described how resources for fisheries science have not grown with demand for harvest advice, and noted that the Canadian Science Advisory Secretariat process would benefit from improvements to standardized procedures, reducing political interference, and the provision of formal reviewers (with compensation). Burridge recommended investing \$10 million annually in fisheries science and monitoring for groundfish and shellfish alone.
- **Keith Sullivan** explained the essential role of fish harvesters in sustainable fisheries management, and that inshore fishery is in need of support and investment. Sullivan noted that over 1,000 harvesters volunteer their time and expertise to address gaps in federal science, yet receive few DFO invitations during the science and management process. Sullivan recommended increasing independent inshore fish harvesters' contributions to the scientific and management processes for all fisheries, and to prioritize independent inshore harvesters, and those who live in and depend upon the adjacent marine environment, in the blue economy strategy.
- **Aidan Fisher** reflected on their experience as a fisheries biologist for the Lower Fraser Fisheries Alliance, an Indigenous technical organization working to support the interests of 23 First Nations. Fisher expressed frustration at the inconsistency and lack of transparency with which science is applied to support management decisions. Fisher noted that there is little transparency in the studies prioritized by DFO, and that stocks contributing to First Nations fisheries are simply not prioritized for study. Fisher stated that resources are not provided for external participants to engage in the Canadian Science Advisory Secretariat peer review processes. Fisher stated that if DFO and Canada are committed to reconciliation, then a robust Indigenous knowledge and application program should be developed, and to develop a transition program for all work happening in the traditional territories of First Nations that are interested in taking on fisheries work. Fisher called for DFO to extend to First Nations the same openness, transparency and collaborative spirit that is extended to other sectors.

- **Melanie Giffin** outlined how DFO processes are hindering proper data collection, sharing and consultation. Giffin recommended that DFO's logbooks should be created with input from harvesters to ensure consistency of data collection. For field and at-sea data collection, Giffin recommended that DFO ensure funding is there to complete the work, whether it is being carried out by DFO directly, or by industry for DFO. Giffin noted that the P.E.I. Fishermen's Association is not always invited to the Canadian Science Advisory Secretariat process, and that there is a lack of DFO interest in hearing what harvesters have to say. Giffin called for trust and transparency in how information is passed to the minister, and for clear processes, with timely release of documentation prior to deadlines and meetings.
- **Jean Côté** reflected on their experience in working at the Regroupement des pêcheurs professionnels du sud de la Gaspésie. Côté noted that despite repeated requests, they have not received information regarding the protocol planned by DFO for lobster fisheries management in fishing area 21, nor the results of the study which informed it. Côté stated that there is a lack of information sharing between DFO and associations.

Here are some of the key points raised during the witness questioning period:

- **Rick Perkins** (CPC) asked **Giffin** to comment on the role of harvesters in developing policy, given that past witnesses have suggested that harvesters shouldn't be involved in those decision-making processes. **Giffin** noted that it comes down to understanding the contribution that industry can provide, as harvesters will see changes on the water before DFO scientists. Giffin said that harvesters have a right to be a part of the process, and that DFO can potentially miss changes.
  - In response to **Caroline Desbiens'** (Bloc) question about why DFO doesn't take the requests or scientific advice from fishers into consideration, **Côté** noted that there is a tendency to say that fishers are too involved, or that their science is not as good as researchers or as DFO's science. Côté disagreed, noting that most lobster fishers are multi-species fishers who value sustainability, and invest money, sometimes without help, for research. Côté also noted that DFO will need help to ensure its advice and research is up to date.
  - In response to **Mel Arnold's** (CPC) question about what science is being requested to be undertaken, and how it is affecting harvesters, **Burridge** noted that the influx of funding has gone towards ocean science, and little towards fisheries science, despite the essential nature of stock assessment, risk evaluation and mitigation. Burridge also requested that the Committee consider a recommendation to address the proper resolving of the stock assessment and science function, as well-established stock assessment and technical DFO staff are retiring and being replaced with recent graduates with no experience.
  - **Robert Morissey** asked how DFO could incorporate information and advice from fishers in a structured manner, while recognizing that there may be competing advice. **Giffin** suggested that to increase transparency, DFO could share with industry and the advisory committee a summary table of what each stakeholder has recommended.
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## Meeting 6 (9 June 2022)

The witness list was as follows:

- Eda Roussel (Fisheries Advisor, Association des crevettiers acadiens du Golfe)
- Phil Morlock (Director, Government Affairs, Canadian Sportfishing Industry Association)
- Jean Lanteigne (Director General, Fédération régionale acadienne des pêcheurs professionnels)
- Martin Mallet (Executive Director, Maritime Fishermen's Union)
- Dave Brown (Public Fishery Alliance)
- Christopher J. Bos (President, South Vancouver Island Anglers Coalition)
- Owen Bird (Executive Director, Sport Fishing Institute of British Columbia)
- Martin Paish (Director, Business Development, Sport Fishing Institute of British Columbia)

The key points raised during the witnesses' opening remarks were:

- Reflecting on 35 years of experience of working with DFO, **Phil Morlock** stated that while Canadian provincial and U.S. state natural resources agencies continue to apply components of the North American model of conservation, the DFO no longer does. Morlock noted that with Tom Bird's retirement, "the DFO approach with policy and stakeholders changed for the worse", and shared examples of the "erosion of credible science." Morlock stated that since DFO and Environment Canada have moved away from the North American model of conservation, the negative impacts on key sport and commercial fish populations has increased exponentially, and the damage to related regional and national economies has been ignored.
- Reflecting on 30 years of experience at the Fédération régionale acadienne des pêcheurs professionnels (FRAPP), **Eda Roussel** spoke about how in recent years, there has been a discrepancy between fishery indices and DFO survey data. Roussel stated that fishers' data deserves to be taken into account as much as scientific data, and that trust among fishers, DFO, and DFO's science branch is not the best right now. Roussel noted that the goal of a fisher is not to destroy the species, but to earn a living annually; fishers understand that species must be protected for the sustainability of fishing. Therefore, any DFO decision can impact fishers' business. In relation to shrimp, Roussel stated that: 1) serious consultations must be held on the impact of predation by redfish on shrimp populations; 2) DFO should offer financial support to enable shrimpers to research this, in collaboration with the DFO's science branch; and 3) a commercial redfish fishery must open. Roussel also noted that the shrimp advisory committee is the main avenue for industry consultations, but there is no transparency on the recommendations that are made to the minister.
- **Martin Mallet** spoke about how the Maritime Fishermen's Union works with organizations like DFO to build and sustain healthy fisheries. Mallet proposed three recommendations: to use collaborative science for all parties to exchange information; to properly fund and adapt DFO stock assessment science to a changing ecosystem (including developing a holistic research strategy); and to put in place ad hoc committees

and science networks to study issues from all angles, conduct regional consultations, and explore out-of-the-box ideas. Mallet suggested that the now-defunct Fisheries Resource Conservation Council (FRCC) could be a potential model to pursue.

- **Dave Brown** reflected on the importance of chinook salmon, and how a 2019 ministerial non-retention chinook policy negatively impacted public salmon fishery. Brown noted that in 2020, the sport fishing advisory board submitted modest chinook retention proposals, designed in collaboration with DFO fisheries and stock assessment staff. The proposals were deemed low or no risk in 2021, but were rejected, with no rationale. Brown noted that despite various commitments (e.g., DFO's 2010 recreational vision statement, and the Prime Minister's mandate letter), there are personnel within DFO Pacific region's senior fisheries management who are blocking public chinook fishing opportunities for contentious reasons. Brown stated that the Public Fishery Alliance has lost confidence in the DFO senior Pacific region leadership.
- **Christopher J. Bos** stated that there is insufficient support for strategic salmon enhancement in the Pacific region, and called for DFO funding to support volunteer groups and associations who seek to enhance salmon populations. Bos noted that the South Vancouver Island Anglers Coalition has administered a citizen-driven, volunteer-operated local chinook enhancement initiative for six years, raising and releasing 3.5 million healthy chinook smolts with private money. Bos stated there is a lack of access to viable chinook salmon harvest opportunities, and noted that two low-risk chinook retention proposals (which had passed DFO's evaluation process) were turned down by the minister.
- **Martin Paish** reflected on the Sport Fishing Institute's (SFI) activities, noting that volunteer-driven citizen science fishery sampling is a key mechanism for DFO to assess the impacts of recreational fishery and adjust sustainability approaches. In recognition of the importance of these programs, Paish called for DFO to provide appropriate levels of fundings and support for volunteers, and that the data generated by volunteers be used to the best extent possible to inform decisions related to sustainable fisheries. Paish also called for a greater consideration of social, cultural and blue economy implications in DFO decision-making, and that regular evaluation of socio-economic values should occur, as there is no longer current and region-specific data.
- **Jean Lanteigne** noted that sustainable development is critical in fisheries, noting that from 2009 to 2019, the value of seafood products exported by the four Atlantic Canadian provinces increased from \$2.8 billion to \$5.3 billion. Reflecting on earlier testimony, Lanteigne stated that "the fishing industry is all over the map," and that issues, such as endangered species and review of the precautionary approach, are being addressed in a disorderly fashion. Lanteigne proposed the following recommendations: to act quickly, as fisheries are at risk; for increased transparency in decision making; for the stock assessment process to be pursued in more depth; the review and improvement of advisory committee mandates so that DFO is accountable for its decisions to these committees; to host conferences for coastal fisheries, and mid-shore and offshore fisheries, every two to three years; to consider socioeconomic factors in all DFO decisions; and re-establish the Canadian Fisheries Research Network (CFRN) to bring together university researchers, industry stakeholders and DFO authorities.

Here are some of the key points raised during the witness questioning period:

- **Mel Arnold** (CPC) asked whether DFO shares what science it will be undertaking with industry organizations. **Mallet** and **Paish** noted that this is dependent upon the species being studied, the science team, and how current the issue is. **Paish** noted that they are able to share what they believe are research priorities to DFO, but suggestions are rarely acted upon. **Brown** stated that DFO doesn't incentivize or create opportunities for collaboration or communication.
- In response to **Serge Comier's** (LPC) question about whether DFO makes quota or fishery management decisions without taking potential community repercussions into consideration, **Lanteigne** stated that DFO is reactive, rather than proactive, and often ends up closing fisheries due to extended inaction.
- **Luc Desilets** (Bloc) asked whether DFO does enough to consult harvester organizations and collaborative science networks to make sensible decisions. **Lanteigne** stated that the issue isn't bad communication, as they can speak to DFO and discuss issues, but "after that, the door closes — and what goes on behind that door, we have no idea." **Desilets** summarized this as "the department listens to what you have to say, but doesn't hear you," to which **Lanteigne** agreed. In a later question from **Desilets**, **Lanteigne** noted that DFO scientists tell their manager what the science says, and management makes the decisions — sometimes, staff are uncomfortable with the decisions, so there is disagreement "when there shouldn't be."
- In response to **Clifford Small's** (CPC) question about whether DFO science is keeping pace with the changing environment, **Mallet** stated that there is a lot of goodwill within the DFO science community, but the bureaucracy behind changing the way we do DFO science is lacking. **Mallet** called for funding to look at where fishery science is lacking, for flexibility in survey timing, and to explore how to change science protocols for stock assessments to better adapt to changes in fish behaviour. **Mallet** stated that "right now, we're doing science with a human calendar or schedule, whereas we should be following the schedule of the fish."
- **Brendan Hanley** (LPC) noted that common themes in the testimony were: "adaptation to current challenges, the need for more transparency, the need for more connection and partnership with both industry and recreational fishers, and the need to integrate social science." **Hanley** asked for examples of how to address these issues. **Bos** noted that there is an opportunity at the individual level to reach out and collaborate between communities (e.g., Indigenous communities, and communities of business, angling and tourism) to develop programs, rather than different stakeholders meeting separately with the government.
- **Brendan Hanley** (LPC) asked about whether DFO has fundamentally changed as an organization over the years, or whether it's a matter of adjusting DFO's strategic approach to compete with today's challenge. **Lanteigne** stated that DFO has changed, with significant staff turnover and changing policies.
- In response to **Maxime Blanchette-Joncas'** (Bloc) question about the ability of DFO scientists to discuss their research, **Lanteigne** noted that DFO scientists are more open and transparent, and share more than they used to. **Blanchette-Joncas** then asked

about whether it is always a good idea to have external experts involved in the DFO scientific process. **Lanteigne** noted that they support peer consultations, but industry is not being consulted at all. Lanteigne proposed the following recommendations: to have observers during peer consultations; for industry to have an “opportunity to provide input on the peers we’d like to see at the table when matters have a direct influence on DFO decisions”; having a parallel research network with universities, industry and the department; and a panel to regularly discuss future issues to be addressed.

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## Meeting 7 (14 June 2022)

The witness list was as follows:

- Robert Hardy (Fisheries Consultant; as an individual)
- Christopher Jones (Retired Senior Fisheries Manager, Department of Fisheries and Oceans; as an individual)
- Andrew Trites (Professor, Marine Mammal Research Unit, Institute for the Oceans and Fisheries, University of British Columbia; as an individual)
- Jeffery Young (Senior Science and Policy Analyst, David Suzuki Foundation)
- Robert Rangeley (Director of Science, Oceana Canada)
- Sean Jones (Lawyer, Wild First)

The key points raised during the witnesses’ opening remarks were:

- **Robert Hardy** reflected on the 30th anniversary of the closure of the northern cod fishery, noting that northern cod stocks remain low, despite three decades of regulations, science and a moratorium. Hardy stated that DFO is ignoring evidence, from fishers, Indigenous peoples, industry associations and seal science; that seal predation is a possible cause; and DFO is reluctant to accept the impact of seals on any fish stocks. Hardy notes that there have been far too many seal studies, committees and forums without real action. Hardy called for implementation of the recommendations within the Atlantic Seal Science Task Team report.
- **Andrew Trites** stated that Canada falls short in terms of doing science that matters to fishers, coastal communities, tourist operators and fisheries managers. Trites called for a new approach to ensure that the fisheries and oceans research undertaken addresses the concerns expressed by the different sectors involved in Canada's fisheries and marine ecosystems. Trites reflected on their experience in participating in the five-year-long Canadian Fisheries Research Network (CFRN), which was funded by the Natural Sciences and Engineering Research Council of Canada (NSERC), and ended in 2015. The collaborative research program was overseen by fishers, academics and government scientists, with the goal of developing fisheries research capacity and enhancing collaborations across sectors. Trites stated that CFRN was a successful program which addressed many of the concerns raised about DFO science, but faltered “in the absence of political support and dedicated funding.” Trites called for reinstating a CFRN-type small national program to answer priority DFO and industry questions.



- **Robert Rangeley** called on DFO to prioritize and resource the increase in capacity necessary to complete fisheries rebuilding plans, adequately monitor fisheries and increase public accountability in decision-making. Rangeley made the following recommendations — that DFO: create plans for the 16 critical stocks in Canada’s new rebuilding regulation; address inconsistencies in catch monitoring by fully implementing the fishery monitoring policy introduced in 2019; and publicly communicate the scientific findings on which management is based in advance of fisheries decisions. Rangeley recommended that for DFO to demonstrate that they are meeting responsibilities, they should publish an annual public report on the status of stocks, staffing levels, and expenditures (by program area and fisheries management performance).
- **Sean Jones** reflected on their experience in acting as legal counsel for WildFirst, and First Nations, on various finfish aquaculture issues, stating that the “aquaculture management directorate and the Canadian Science Advisory Secretariat consistently suppress, misrepresent and ignore the scientific evidence demonstrating that open net-pen feedlots of Atlantic salmon threaten the survival of wild Pacific salmon.” Jones recommended that the minister appoint an independent scientific advisor to advise on evidence on this issue, and that an independent third party, such as a commissioner under the Inquiries Act, should investigate DFO’s conduct and the misfeasance of DFO managers, and make recommendations for reform.
- **Jeffery Young** stated that the process for DFO decision-making is broken, and that science is being pushed to the side. Young noted that there is a tendency within DFO to “maximize its own discretion while minimizing accountability.” Young stated the stakeholder tables have repositioned DFO as an arbiter between interests, rather than a regulator, and that there is often a conflict of interest between DFO managers and the operations they are meant to regulate. Young noted that it is important to understand that ecosystems are highly complex, and that attempting to manipulate or control ecosystems has failed. Young explained that the belief that culling a salmon predator will improve salmon abundance disregards ecosystem complexity, and is likely to fail to produce intended benefits. Young stated that science needs to be transparently recentered in the decision-making structure, and independently of political interference. Young noted that it is appropriate for political decision-makers to weigh multiple considerations, but science advice must be publicly available and objective. Young recommended implementing existing policies, creating a clear plan for co-governance with First Nations, creating a tracking and auditing mechanism for outcomes, and restructuring DFO where necessary to support changes and remove conflicts of interest.
- **Christopher Jones** reflected on their experience as a former federal fisheries manager, and posed a series of questions regarding updates to recent assessment models. Jones called for DFO science to be transparent in developing priorities to enable discussions.

Here are some of the key points raised during the witness questioning period:

- In response to **Lisa Marie Barron’s** (NDP) question about co-governance with First Nations, **Young** said that co-governance is critical in adjusting and managing fisheries and aquatic ecosystems back to their rightful place, and empower First Nations communities to take on these responsibilities themselves.

- In response to **Robert Morrissey's** (LPC) question about how DFO can incorporate fisher-based knowledge, **Christopher Jones** noted that fisher-based science needs to be incorporated with both fisheries science and management, across the board, and into the Canadian Science Advisory Secretariat process.
  - In response to a question from **Caroline Desbiens** (Bloc), **Rangeley** noted that the Canadian Science Advisory Secretariat has a policy on the transparent publication of documents, yet only about 10% get published on time, and increasingly, the science is coming out after a decision has been made. Rangeley suggested hosting a technical briefing to allow for a full disclosure of findings, while the publication process proceeds through the Canadian Science Advisory Secretariat.
  - **Ken Hardie** (LPC) asked whether the Canadian Science Advisory Secretariat model is serving public interest. **Rangeley** shared concerns about the timeliness of information provided in the process, and the presumption that individuals who aren't in the room have nothing to add to the evidence. Rangeley noted that much of the evidence coming to the minister is opaque (i.e., the basis on which the science decisions are being made), and advocated for a process in which the evidence that the minister is making decisions on is transparent.
  - In response to **Lisa Marie Barron's** (NDP) question about how to restructure DFO to remove conflicts of interest, **Young** called for science advice to be presented, in a clean and unbiased format, publicly and directly to the minister without interference. **Sean Jones** noted that DFO managers need to allow scientists to communicate directly with decision-makers, and that briefing materials go unadulterated to the minister, rather than DFO managers interfering and presenting science in a way to confirm existing policy. **Trites** noted that there is often a disconnect between science and management: science is a bottom-up process, while management seems to be top-down. Trites recommend the process could be improved if managers built relationships with scientists, so that scientists have a better understanding of what the questions are.
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## **Meeting 8** (21 June 2022)

The witness list was as follows:

- Kris Vascotto (Executive Director, Atlantic Groundfish Council)
- Mark Prevost (President, Bait Masters Inc.)
- Wally MacPhee (Vice-President, Bait Masters Inc.)
- Leonard LeBlanc (Professional Advisor, Gulf Nova Scotia Fishermen's Coalition)
- Carey Bonnell (Vice-President, Sustainability and Engagement, Ocean Choice International L.P.)

The key points raised during the witnesses' opening remarks were:

- **Kris Vascotto** noted that industry provides a unique perspective and important knowledge. Vascotto stated that the Canadian Coast Guard's capacity to reliably deliver a platform to complete DFO scientific surveys has been challenged by aging vessels,

new vessel failures and deployment scheduling This has led to less certainty on stock status and erratic science advice. Vascotto noted that core areas necessary for good fisheries management have been overlooked or remain underfunded, and that balanced investment is needed. Vascotto called for DFO to create an environment where institutional knowledge can be passed to the next generation of stock assessment experts, as well as employee retention strategies. Vascotto stated that Canadian Science Advisory Secretariat reviews are often cursory, as the process is populated by familiar personnel within the local work unit, and there is difficulty in recruiting external reviewers due to time demands, limited expertise and a lack of compensation. Vascotto called for compensating reviewers, improving timelines for the review and posting of materials from the peer review processes, and addressing why ministerial decisions are promoting arbitrary reductions in the absence of established scientific process or support.

- **Leonard LeBlanc** reflected on their experience as a harvester. LeBlanc called on DFO to consider the capacity that the fishing industry can offer to its data collection. LeBlanc noted that the DFO must have sufficient financial resources to conduct its work, as previous governments had devastated DFO's science budget.
- **Carey Bonnell** is concerned that the Government of Canada's investments have primarily been to support ocean science, rather than addressing capacity and expertise for commercial stock assessments. This has resulted in capacity challenges among DFO science staff, and gaps in DFO's multispecies fisheries vessel survey program. This missing data is necessary for fisheries management decision-making, and can lead to reputation risk and an undermining of market access. Bonnell noted that industry-led surveys continued without interruption amid the pandemic. Bonnell recommended that the government immediately address research vessel issues, actively plan to expand the use of industry vessels to gather data, and make strategic reinvestments in fundamental fisheries science and stock assessment modeling capacity.
- **Mark Prevost** noted that the current data regarding stock levels of mackerel and herring fisheries are not accurate due to undeclared catches and uncertainties in the data collection method. Prevost also noted that Canada does not have any regulations regarding bait, as there is no process to review, validate or certify that a species is safe for use in the ocean fisheries.

Here are some of the key points raised during the witness questioning period:

- In response to **Mike Kelloway's** (LPC) question about what fishers want to see in a collaboration, **LeBlanc** states that industry should be involved from the beginning, and not after protocols are written and DFO has already decided what the action should be.
- In response to **Mel Arnold's** (CPC) question about how fish harvesters' knowledge should be integrated into the CSAS process, **Vascotto** noted that industry members can bring forward observations outside of the standard, which trained scientists can take and formulate advice from. When **Arnold** asked about whether it is difficult to evaluate whether a DFO decision has been evidence-informed, **Vascotto** noted that when a decision runs contrary to recommendations from Canadian Science Advisory Secretariat

reports, they then ask questions about how the decision was developed and what the basis of it was.

- **Robert Morrissey** (LPC) asked how information provided by fishers can be taken into the consideration process. **LeBlanc** noted that what fishers witness on the oceans can be included in science evaluations, and is valuable, but it seems that “if you don’t have a university degree, you’re not able to be heard.” LeBlanc noted that there is a need to re-evaluate how science is done.
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## Meeting 9 (7 October 2022)

The witness list was as follows:

- Leonard Archibald Jewers (Fisherman; as an individual)
- Morley Knight (Former Assistant Deputy Minister, Fisheries Policy, Department of Fisheries and Oceans; as an individual)
- Herb Nash (President, 4VN Management Board)
- Adam Burns (Acting Assistant Deputy Minister, Fisheries and Harbour Management, DFO)
- Neil Davis (Regional Director, Fisheries Management Branch, Pacific Region, DFO)
- Arran McPherson (Assistant Deputy Minister, Ecosystems and Oceans Science, DFO)
- Sarah Murdoch (Senior Director, Pacific Salmon Strategy Transformation, DFO)
- Rebecca Reid (Regional Director General, Pacific Region, DFO)
- Doug Wentzell (Regional Director General, Maritimes Region, DFO)

The key points raised during the witnesses’ opening remarks were:

- Reflecting on past experiences in working at DFO, **Morley Knight** stated that while there are great scientists working at DFO, DFO science is often unable to produce science advice adequate for fisheries management. Knight noted that there are challenges with vessels when surveys need to be completed, and that research isn’t always analyzed on a timely basis. Knight stated that science programs are “married” to theoretical processes: this can fall apart when a survey isn’t completed, and models are not always right. Knight stated that there is a reliance on science-only sources of information, and not enough emphasis on integrating anecdotes from harvesters and Indigenous groups about stock health. Knight also noted that there is poor communication, and that scientists need to spend more time communicating with harvesters and help diminish the gap between the views of fish harvesters and science. Knight recommended implementing a greater reliance on partnerships with fish harvesters and the fishing industry to gather information for science; better use of information and advice from harvesters in developing science; and providing more emphasis on general advice on which direction a stock is moving in, rather than prescriptive advice. For DFO, Knight recommended: ensuring the ships scientists need to do their work are operating; that science programs should be more pragmatic and resilient to include all available

information; and that leadership capacity needs to be improved so that science programs are properly led in the direction they need to go.

- **Arran McPherson** reflected on their experience as the current assistant deputy minister responsible for DFO's Ecosystems and Oceans Science sector, and spoke about the science at DFO. McPherson noted that the focus of DFO science is influenced by the department's mandate, the Government of Canada's priorities and the DFO management's decision-making needs.

Here are some of the key points raised during the witness questioning period:

- In response to **Clifford Small's** (CPC) question about whether there were situations where the scientific evidence may be questionable when making a decision, **Knight** stated that there were many times they had to make difficult decisions when they weren't confident that science advice was pointing in the right direction.
- In response to questions from **Caroline Desbiens** (Bloc), **Knight** noted that it is a difficult balance to consider all of the different factors in fishery and the social impacts that might result from advice. Knight noted that when there is certainty that a stock is in dire shape, then action must be taken for greater certainty for the future. Knight called for greater communication with fish harvesters, and for more pragmatic advice.
- In response to **Rick Perkins'** (CPC) question about potential options to address challenges in carrying out DFO science through vessels, **Knight** noted that given the current unpredictability, DFO science and industry need to work together to look at better models for delivery.
- In response to **Mel Arnold's** (CPC) questions about the CSAS process, **McPherson** stated that the conflict of interest policy was codified in 2021, and that the chair of the individual Canadian Science Advisory Secretariat processes is responsible for its implementation. McPherson stated that the deputy minister is responsible for the overall application of DFO's science integrity policy, and the ombudsperson is responsible for addressing breaches.
- In response to a question from **Ken Hardie** (LPC) about prior claims of information being "massaged by DFO" and contamination from the consensus model, **McPherson** clarified that consensus is defined as the "absence of evidence-based opposition", and noted that evidence must be brought forward to support the point of view being made at the meeting. **McPherson** challenged the interpretation of information being massaged, and stated that it's important to look at peer-reviewed information as it becomes available. As new papers are published, they revisit advice given to inform decision-making.
- **Sylvie Bérubé** (Bloc) asked questions about DFO's science capacity. **McPherson** noted that analyses and stock assessments are becoming increasingly complex: the department already makes use of external experts, and could make use of them more. This would involve considering how to leverage partnerships. When asked about whether the department has the necessary resources to do its job well, if the department needs more funding, or if there is a labour shortage, McPherson said that it is important to set priorities, and that work is driven by what management needs to inform decision-making. McPherson noted that sometimes money isn't the issue, rather it's having enough time to conclude ongoing research.

- In response to **Lisa Marie Barron's** (NDP) question about how participants in the Canadian Science Advisory Secretariat process are selected, **McPherson** explained that once the process to formulate advice has been launched, the steering committee selects participants. The steering committee consists of the chair, members of the management team who have asked for advice, as well as relevant experts, including those who will be drafting the papers to be discussed. McPherson noted that in the future, a registry will be developed for individuals to self-identify as an expert.
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## **Meeting 10 (18 October 2022)**

The witness list was as follows:

- Jean Lanteigne (Director General, Fédération régionale acadienne des pêcheurs professionnels)
- Martin Noël (President, Association des pêcheurs professionnels crabiers acadiens, Fédération régionale acadienne des pêcheurs professionnels)
- Keith Sullivan (President, Fish, Food and Allied Workers - Unifor)
- Bonnie Morse (Project Manager, Grand Manan Fishermen's Association)
- Paul Lansbergen (President, Fisheries Council of Canada)
- Molly Aylward (Executive Director, Prince Edward Island Fishermen's Association)
- Melanie Giffin (Marine Biologist and Industry Program Planner, Prince Edward Island Fishermen's Association)
- Michael Barron (President, Cape Breton Fish Harvesters Association)

The key points raised during the witnesses' opening remarks were:

- **Jean Lanteigne** and **Martin Noël** reflected on ongoing fishing activities and the importance of collaboration.
- **Keith Sullivan** stated that there has been little engagement from DFO with harvesters in Newfoundland and Labrador on various issues, such as endangered right whales, and refuses to acknowledge input from experienced harvesters.
- **Bonnie Morse** noted that fishers have been coexisting with North Atlantic right whales, and have worked collaboratively with researchers, with and without government involvement, to provide real protection that hasn't always been quantifiable in a government report. Morse recounted how in June 2018, DFO closed a portion of a lobster district after a right whale was spotted. Morse stated that a single sighting doesn't necessarily herald the arrival of whales into the bay, and that the 10-day closure cost over a million dollars in landings. Morse noted the ongoing uncertainty, as the impact of closure can be devastating and has led to fisher disenfranchisement. Morse noted that "solutions will only be found if there is a willingness to listen."
- **Paul Lansbergen** noted the following: no one wants to endanger whales; no one wants to lose gear; dynamic closures are an effective approach; and that it is important to respond to organizations that criticize the industry.

- **Molly Aylward** noted that there has been a lack of meaningful consultation with harvesters, and that considerable time should be invested to speak to fishers and determine what will and won't work in an area.
- **Michael Barron** emphasized that science, evidence and transparent risk assessments need to be at the forefront of DFO policy and regulatory decisions, and not misinformation. Barron noted that industry seems to be on the defensive when policy changes are driven by public relations campaigns, rather than science, evidence and risk assessments, and want appropriate time to adjust to practical and logical change.

Here are some of the key points raised during the witness questioning period:

- In response to **Serge Cormier's** (LPC) question about whether technology can be used to support closures and reopenings, **Noël** stated that closures should depend on the presence of an aggregation of whales, which would result in more reasonable seasonal closures. **Cormier** asked whether it is time for the region to have its own equipment to open the harvesting season sooner. **Lanteigne** agreed, and noted that the Coast Guard's purpose is to protect people, so fishery comes second. The harvesting season is delayed as ice is not broken up sooner.