



Fact Sheet: Chronology of Fisheries and Oceans Canada's Mismanagement of Aquaculture in British Columbia

Below is a chronology of inquiries, audits, reports, court judgments, political decisions, and mandates regarding DFO's gross mismanagement of finfish aquaculture in British Columbia since DFO began regulating the industry in 2010.

- **2009: The BC Supreme Court rules that finfish aquaculture falls under Federal jurisdiction.**ⁱ
- **2012: The Cohen Commission concludes that DFO should not have dual mandate to promote and police the aquaculture industry.**ⁱⁱ
- **2015: The Federal Court rules DFO conduct unlawful and unreasonable.** Mr. Justice Rennie of the Federal Court finds that:
 - the Minister had *unlawfully sub-delegated to industry licensees his authority to stock farms* – that is, DFO gave aquaculture licensees the right to decide for themselves if fish were free of disease and disease agents that might harm wild fish, a decision that, by law, only the Minister could make; and
 - DFO had not adhered to the precautionary principle, saying DFO's arguments are “inconsistent, contradictory and, in any event, fail in light of the evidence”.ⁱⁱⁱ
- **2018: The Commissioner for the Environment and Sustainable Development concludes DFO prioritizes industry over protecting wild fish.** DFO:
 - “had not made sufficient progress in completing risk assessments for key diseases, which were required to assess the effects of salmon farming on wild fish”;^{iv}
 - “did not sufficiently enforce its Aquaculture Activities Regulations to minimize harm to wild fish”;^v and
 - “was vulnerable to claims that it prioritized the development of the aquaculture industry over the protection of wild fish”.^{vi}



FIRST NATION
Wild Salmon Alliance

- **2018: The Federal Court finds DFO does not exercise regulatory control.** When stocking open net-pen feedlots DFO has “no supervisory control or objective criteria with respect to testing for PRV or HSMI”.^{vii}
- **2018: The Independent Panel on Aquaculture Science concludes DFO science is not objective.** The panel recommends establishing an External Advisory Committee and appointing a Departmental Science Advisor to address issues of bias.^{viii}



- **2019: The Federal Court finds DFO’s regulation of the Piscine orthoreovirus (“PRV”) unlawful for a second time on four independent grounds:**

1. DFO failed to reasonably interpret its core mandate under the *Fisheries Act* – the protection and conservation of fish.
2. DFO did not adhere to the precautionary principle – to anticipate, prevent, and attack the causes of environmental degradation and not use scientific uncertainty to excuse inaction.
3. DFO breached its constitutional duty to consult and accommodate ‘Nan̓amgis First Nation.
4. DFO failed to consider the risk to wild Pacific salmon when regulating PRV, the virus responsible for one of the leading causes of death in fish farms globally.

- **2019: The Prime Minister mandates transition:**

Work with the province of British Columbia and Indigenous communities to create a responsible plan to transition from open net-pen salmon farming in coastal British Columbia waters by 2025.^{ix}

- **2020: DFO found to have breached duty to consult by the Federal Court of Appeal.** When DFO breached the duty consult on the PRV Policy, it also breached the duty for licences issued under that policy: “It would offend common sense to hold otherwise.”^x

- **2020: Minister Jordan decides to remove open net-pens from the Discovery Islands contrary to DFO advice.** On December 16, 2020, Minister Bernadette Jordan announced her decision to phase-out 19 open net-pen feedlots from the Discovery Islands area by June 30, 2022. DFO bureaucrats did not provide advice, evidence, or a rationale to support this decision.

- **2021: The Prime Minister again mandates transition:**

Continue to work with the province of British Columbia and Indigenous communities on a responsible plan to transition from open net-pen salmon farming in coastal British Columbia waters by 2025...^{xi}

- **2022: The Federal Court quashes Minister Jordan’s 2020 Discovery Islands decision:**^{xii}

- DFO’s former Director of its Aquaculture Management Directorate (“AMD”), Allison Webb, provided evidence harmful to the Minister which the Court found dispositive.
- Ms. Webb testified she was “surprised” by the Minister’s decision. The Court found the “fact that a senior employee of DFO was not aware of that possibility [that the



farms would not be licenced] underscore[d] the degree of the breach of procedural fairness, relative to the Applicants [aquaculture licensees].”^{xiii}

- **2022: The Information Commissioner compels DFO to release a draft of a paper documenting the first detection of PRV in British Columbia and evidence that the pathogen is associated with fatal disease in Chinook salmon.**
 - DFO suppressed the release of the paper for over a decade.
 - The Information Commissioner found that DFO had *no lawful reason* to withhold it from *Access to Information* request.^{xiv}
- **2022: DFO releases its framework for consultation on the Transition Plan – DFO does not identify removal of net-pens as possible outcome.**^{xv}
 - The Framework is not consistent with the Minister’s duty to protect and conserve fish.
 - From spring 2023 to February 2024, consultation on the Transition Plan was stalled. On February 16, 2024, DFO announced it would hold the last phase of consultation on the Transition Plan for less than 30 days. DFO closed consultation without providing a draft Transition Plan or indicating when a Transition Plan would be released.
- **2023: Minister Murray decides (again!) to remove open net-pen feedlots from the Discovery Islands.**
 - DFO bureaucrats did not provide advice, evidence or rationale to support the Minister’s decision, even after the Minister provided her own bibliography of 59 papers documenting harm caused by open net-pen feedlots.
- **2023: Two First Nations and three aquaculture companies file a judicial review of the Minister’s February 2023 Discovery Islands decision in Federal Court.**
 - They argue that the Minister’s decision was unreasonable because it went against her department’s advice.^{xvi}
- **2023: Mowi Canada West Inc. sues former Ministers Bernadette Jordan and Joyce Murray personally, claiming damages in the tens of millions, for the former Ministers’ 2020 and 2023 decisions to remove net-pens from the Discovery Islands.**
 - Mowi claims that the former Ministers’ conduct constituted misfeasance in public office, negligence and negligent misrepresentation because they acted contrary to



DFO advice.^{xvii} Two companies who work with the aquaculture industry file similar suits.^{xviii}

- **2023: DFO releases its “What We Heard Report” on the consultation for the Transition Plan.**
 - The report failed to include multiple criticisms of DFO’s consultation or adequately represent the criticisms First Nations and the public had made regarding the industry.
 - The report buried the fact that the majority of British Columbians and the majority of First Nations in British Columbia want the industry removed in Annex B on page 31, the third last page of the report.
- **2023: The Standing Committee on Fisheries and Oceans (“FOPO”) confirms “crisis of trust” in DFO. FOPO recommends 13 different investigations into DFO’s regulation of aquaculture in BC.** Some highlights:
 - Canada’s Chief Science Advisor should examine the role of how DFO managers influence DFO scientists ***and if that influence is ethical*** (Recommendation 33).
 - Echoing Mr. Justice Cohen, DFO should not have a mandate for promoting the industry ***“[g]iven the conflict of interest between DFO’s mandate relating to aquaculture versus the application of the precautionary principle and the ongoing crisis for the health of wild Pacific salmon stocks”*** (Recommendation 41).
 - Given “the established aquaculture management division within the department and that ***DFO favours the interest of the salmon-farming industry over the health of wild fish stocks,***” DFO should establish a wild salmon position independent of the AMD (Recommendation 43).
 - For the nine risk assessments prepared by the Canadian Science Advisory Secretariat, conduct:
 - an independent review of those risk assessments, including on the terms of reference and ***“factors that resulted in the suppression of research findings on the impact of sea lice and possibly other issues with a material impact on the health of wild stocks”***; and
 - an independent audit ***“to determine the accuracy and decision-informing value”*** of the information presented to the Minister (Recommendation 45).^{xix}



- **2023: DFO ignores all 13 of FOPO’s recommendations.**^{xx}
- **2023: Scientists from the Pacific Salmon Foundation, the University of British Columbia, the University of Toronto, Simon Fraser University, Dalhousie University, and the University of California Davis, as well as a lawyer practicing environmental law, conclude that DFO’s aquaculture science does not meet international standards for scientific integrity.**^{xxi} They recommend a national, independent fisheries-science body, with independent funding, that is entrenched in the decision-making process for fisheries decisions.
- **2024: The Public Sector Integrity Commissioner opens an investigation into conduct of DFO officials within the AMD.**^{xxii}
 - The Commissioner is investigating whether DFO officials seriously breached the *Values and Ethics Code for the Public Sector* and DFO’s *Policy on Science Integrity* by attempting to silence scientists through reprimands, to dissuade them from communicating with the media and the public about their research; and by attempting to obstruct or influence their testimony before FOPO.
 - Individuals being investigated include the Assistant Deputy Minister for Ecosystems and Oceans Science and the former Regional Director of Science.



Fact Sheet: Chronology of Selected Examples of Fisheries and Oceans Canada's Suppression of Science

Below is a chronology of selected examples of DFO's suppression and misrepresentation of science regarding the harm caused by open net-pen feedlots. This **is not** an exhaustive list.

- **2011-2012: DFO suppresses the first discovery of Piscine orthoreovirus ("PRV") in British Columbia and evidence PRV is associated with fatal disease (jaundice anaemia) in Chinook salmon.** DFO and industry veterinarians block the publication of this research for over a decade.
 - DFO refused to release the research, even after its findings were subsequently confirmed in other peer-reviewed research.^{xxiii}
 - In 2022, the Information Commissioner, acting on Wild First's complaint, compelled DFO to release an unpublished draft of the paper, finding DFO had no lawful reason to withhold it.^{xxiv}
- **2016: DFO suppresses evidence from a Norwegian expert confirming that PRV from BC causes disease.**
 - In April 2016, Dr. Espen Rimstad, a Norwegian expert on PRV who was conducting a challenge study on PRV from BC, emailed Dr. Kyle Garver, Research Scientist at DFO the results of his challenge study, and told Dr. Garver that there was "**no doubt**" PRV from BC causes a disease called Heart and Skeletal Muscle Inflammation ("**HSMI**") in Atlantic salmon.
 - DFO has never referenced Dr. Rimstad's results in any risk assessments or policy documents.
 - DFO redacted the email reporting Dr. Rimstad's results when originally disclosing documents under the *Access to Information Act*. The full text of Dr. Rimstad's email would eventually be released after years of follow up with the Information Commissioner's office.
- **2016: DFO allows industry to rewrite a press release confirming a diagnosis of HSMI (the disease caused by PRV in Atlantic salmon) on a BC fish farm.** DFO had approved an announcement confirming that it had unequivocally diagnosed HSMI on a BC fish farm.^{xxv} DFO and industry representatives rewrote that press release to say it was a "potential" diagnosis. The scientists responsible for the paper were not informed and strenuously objected to the change after the fact.
- **2018: Dr. Kyle Garver confirms under cross-examination that DFO lied in its risk assessments and signed advice to decision-makers when DFO claimed his research found no evidence that PRV causes disease in infected Chinook.**^{xxvi}



- Dr. Garver's own paper expressly states that 87% of fish had lesions – lesions Dr. Garver confirmed are symptomatic of jaundice anaemia, a fatal disease that causes the red blood cells of infected fish to rupture *en masse*.^{xxvii}
- This finding is consistent with the research described above that DFO suppressed for over a decade.
- **2018: DFO managers alter risk assessment for steelhead trout to downplay commercial threats to imperiled populations against the objections of scientists and provincial counterparts.**^{xxviii}
 - DFO managers revised the conclusion of the final risk assessment – without participants' knowledge or approval – to state that current levels of harm (which had resulted in an 80% decline in both steelhead populations assessed) were permissible.
 - Participants repeatedly told DFO this conclusion was not scientifically defensible and was directly contrary to the scientific consensus reached during the risk assessment. ***Provincial representatives expressly asked that DFO remove the risk assessment from its website.*** DFO did not correct the risk assessment.
 - In 2019, Minister Wilkinson relied on the risk assessment for his decision not to list both of those two steelhead populations as at risk under the *Species at Risk Act*.

(Although this example is not in the aquaculture context, we provide it as an example of DFO unilaterally altering scientists' conclusions to downplay the risk of harm to wild fish before providing advice to the Minister, consistent with its conduct regarding aquaculture risk assessments.)

- **2020: DFO allows industry veterinarians, including the Managing Director of Mowi Canada West, to vote, behind closed doors, on the case definition for HSMI to be used in BC.**
 - The result is a very narrow case definition that departs from international standards and requires multiple criteria used nowhere else.
 - The case definition makes it impossible to diagnose HSMI in BC.^{xxix}
- **2020: DFO suppresses evidence that *Tenacibaculum maritimum* from open net-pen feedlots is causing population-level impacts in endangered Pacific salmon from the Minister and First Nations.**
 - DFO told the Minister and First Nations that the disease agent poses no more than a minimal risk to wild salmon, while contemporaneously briefing industry on the research showing population-level impacts to wild populations.^{xxx}



- **2023: DFO falsifies the results of research findings in its risk assessment on sea lice to conclude there is no statistical association between sea lice on juvenile wild salmon and sea lice on nearby feedlots.**
 - Internal documents released under the *Access to Information Act* confirm that the results revealed the opposite conclusion: that there is a ***significant association between sea lice infection on wild salmon and feedlots.***
 - Sixteen scientists call for the results of the sea lice risk assessment to be reconsidered due to a lack of scientific integrity.^{xxxii}
- **2020 & 2023: DFO managers sabotage two Ministers' decisions to remove open net-pen feedlots from the Discovery Islands.**
 - In judicial reviews of those decisions, aquaculture companies relied on DFO's own evidence and advice to the Minister as evidence that the decisions were unreasonable and procedurally unfair.
 - In both decisions, DFO rigged the decision record to only include the Aquaculture Management Division's own science when it advised Ministers Jordan and Murray against removing open net-pens from the Discovery Islands.
 - When Minister Murray documented her concerns with 59 peer-reviewed papers demonstrating the risk of harm posed by open net-pens, DFO refuse to assist her, and instead advised that "the Department's view is that there is not sufficient evidence to substantiate reasons" to remove open net-pens from the Discovery Islands.^{xxxiii}



Fact Sheet: The Endangered Status of Wild Pacific Salmon in BC

- **2020: The Fraser River has the lowest sockeye return in recorded history, with only 365,000 fish returning.** In 2009, the return of 1.4 to 1.6 million fish was considered a crisis warranting a judicial inquiry (i.e., the Cohen Commission).^{xxxiii}
- **2020: Wild salmon populations throughout BC are on the verge of collapse, with over 100 populations at risk:**
 - **Fraser River sockeye:** 10 Designatable Units (“DUs”) are listed as endangered or threatened and identified as unlikely to recover unless all sources of harm, including open net-pen aquaculture, are reduced to the “maximum extent possible”.^{xxxiv}
 - **Fraser River Chinook:** 13 DUs are listed as red (poor status) and amber (marginal status) and open net-pen aquaculture is identified as a threat to their survival.^{xxxv}
 - **Fraser River coho:** Interior population is designated as threatened and three conservation units are listed as amber status.^{xxxvi}
 - **Nanaimo River Chinook:** Assessed as threatened.^{xxxvii}
 - **Broughton Archipelago:** Out of 94 populations, 79 are assessed in the red (at risk of extirpation) or amber (of concern) zones.^{xxxviii}
- **2018-2022: Three out of the last four cycles of Fraser River sockeye confirm a clear, downward trajectory towards extinction.**^{xxxix}
- **2022: The Canadian Science Advisory Secretariat specifically identifies aquaculture as a threat to the survival of endangered Fraser River sockeye and Chinook and identifies transition to closed containment as a measure to protect at risk populations.**^{xl}
- **2022: Pink salmon return in record numbers to the Broughton Archipelago where feedlots have been removed from their migratory routes.**^{xli}
- **2023: Minister Joyce Murray relies on established body of scientific literature demonstrating sea lice, pathogens and diseases from open net-pen feedlots are causing harm to endangered populations of wild Pacific salmon to justify her decision not to issue licences in the Discovery Islands.**^{xlii} This body of science is not produced by DFO. DFO refuses to assist the Minister in justifying her decision based on that science.



- **2023: The Fraser River sockeye commercial fishery does not open for a fourth year in a row. Aboriginal food, social and ceremonial fishing is limited due to low returns.**^{xliii}

Endnotes

- ⁱ *Morton v. British Columbia (Agriculture and Lands)*, 2009 BCSC 136.
- ⁱⁱ Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River by Mr. Justice Cohen, Volume 3, page 12, available here: <https://publications.gc.ca/site/eng/432516/publication.html>.
- ⁱⁱⁱ *Morton v. Canada (Fisheries and Oceans)*, 2015 FC 575, para 44.
- ^{iv} *2018 Spring Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada Report 1 – Salmon Farming*, para 1.17 (“**Auditor General Report**”).
- ^v Auditor General Report, para. 175.
- ^{vi} Auditor General Report, para. 1.49.
- ^{vii} *Namgis First Nation v. Canada (Fisheries, Oceans and Coast Guard)*, 2018 FC 334, para. 92.
- ^{viii} Office of the Chief Science Advisor of Canada, *Report of the Independent Expert Panel on Aquaculture Science December 2018*, pages 14 and 20, available here: https://science.gc.ca/site/science/sites/default/files/attachments/2022/Aquaculture_EN_final.pdf.
- ^{ix} The Rt. Hon. Justin Trudeau, “Minister of Fisheries, Oceans and the Canadian Coast Guard Mandate Letter” (December 13, 2019), online: <https://pm.gc.ca/en/mandate-letters/2019/12/13/minister-fisheries-oceans-and-canadian-coast-guard-mandate-letter>.
- ^x *Namgis First Nation v. Canada (Fisheries, Oceans and Coast Guard)*, 2020 FCA 122, para. 38.
- ^{xi} The Rt. Hon. Justin Trudeau, “Minister of Fisheries, Oceans and the Canadian Coast Guard Mandate Letter” (December 16, 2021), available here: <https://www.pm.gc.ca/en/mandate-letters/2021/12/16/minister-fisheries-oceans-and-canadian-coast-guard-mandate-letter>.
- ^{xii} *Mowi Canada West Inc. v. Canada (Minister of Fisheries, Oceans and the Canadian Coast Guard)*, 2022 FC 588 [*Mowi 2022*].
- ^{xiii} *Mowi 2022*, para. 201.
- ^{xiv} See news coverage of the Information Commissioner’s report here: <https://www.theglobeandmail.com/politics/article-federal-salmon-study-that-found-viruses-at-fish-farms-released-10/>; and <https://www.theguardian.com/world/2022/apr/14/infected-farmed-wild-salmon-canada-virus-report>.
- ^{xv} Available here: <https://www.pac.dfo-mpo.gc.ca/consultation/aquaculture/bc-transition-cb/index-eng.html>.
- ^{xvi} Federal Court File No. T-554-23. As of April 19, 2024, the Federal Court has not yet rendered its decision.
- ^{xvii} Supreme Court of British Columbia, Court File No: S232397.
- ^{xviii} Supreme Court of British Columbia, Court File Nos: S232510 and 232511.
- ^{xix} FOPO’s report is available here: <https://www.ourcommons.ca/DocumentViewer/en/44-1/FOPO/report-8/>.
- ^{xx} The Government Response to the FOPO report is available here: <https://www.ourcommons.ca/DocumentViewer/en/44-1/FOPO/report-8/response-8512-441-209>. For a summary and analysis of the Government Response, see a report prepared by Evidence for Democracy here: https://evidencefordemocracy.ca/wp-content/uploads/2023/08/FOPO-Report-8_Science-At-The-Department-of-Fisheries-and-Oceans.pdf.
- ^{xxi} Godwin et al. (2023), “Is scientific inquiry still compatible with government information control? A quarter-century later”, *Canadian Journal of Fisheries and Aquatic Sciences* (2023), <https://doi.org/10.1139/cjfas-2022-0286>.



FIRST NATION
Wild Salmon Alliance

^{xxiii} *The Globe and Mail*, “Integrity commissioner launches investigation of DFO officials over alleged attempts to silence scientists”: <https://www.theglobeandmail.com/politics/article-integrity-commissioner-launches-investigation-of-dfo-officials-over/>.

^{xxiii} E Di Cicco, HW Ferguson, KH Kaukinen, AD Schulze, S Li, A Tabata, OP Günther, G Mordecai, CA Suttle & KM Miller, “The same strain of *Piscine orthoreovirus* (PRV-1) is involved in the development of different, but related, diseases in Atlantic and Pacific Salmon in British Columbia,” *FACETS* 3 (2018) 599-641, <https://doi.org/10.1139/facets-2018-0008>.

^{xxiv} *The Guardian*, “Canada ignored warnings of virus infecting farmed and wild salmon”: <https://www.theguardian.com/world/2022/apr/14/infected-farmed-wild-salmon-canada-virus-report>; and *The Globe and Mail*, “Why a federal salmon study that found viruses at B.C. fish farms took 10 years to be released”: <https://www.theglobeandmail.com/politics/article-federal-salmon-study-that-found-viruses-at-fishfarms-released-10/>.

^{xxv} E Di Cicco, HW Ferguson, AD Schulze, et al., “Heart and skeletal muscle inflammation (HSMI) disease diagnosed on a British Columbia salmon farm through a longitudinal farm study,” *PLOS One* 12:2 (2017) e0171471, <https://doi.org/10.1371/journal.pone.0171471>.

^{xxvi} Canadian Science Advisory Secretariat, Science Response 2015/037: “Assessment of the Occurrence, Distribution and Potential Impacts of Piscine Reovirus [PRV] on the West Coast of North America”, available here: <http://waves-vagues.dfo-mpo.gc.ca/Library/364990.pdf>. DFO has relied on this risk assessment for all reconsiderations of its policy not to prohibit the transfer of smolts infected with PRV into open net-pens up (the “**PRV Policy**”) from 2015 until the last reconsideration in 2019. In a rapid science response conducted in June 2018 to inform a reconsideration of the PRV Policy, DFO managers and scientists, **including Dr. Garver**, repeated this lie, stating that Dr. Garver’s study found no evidence of disease. For further discussion on DFO’s misrepresentations to decision-makers with respect to Dr. Garver’s research, please see “Written Submissions for the House of Commons’ Standing Committee on Fisheries and Oceans’ Study of Science at Fisheries and Oceans Canada” submitted by Sean Jones, Legal Counsel, Wild First, available here:

<https://www.ourcommons.ca/Content/Committee/441/FOPO/Brief/BR11834861/br-external/WildFirst-SeanJones-e.PDF>; and “Written Submissions for the House of Commons’ Standing Committee on Fisheries and Oceans’ Study of Science at Fisheries and Oceans Canada” submitted by Tony Allard, Chairman, Wild First, available here:

<https://www.ourcommons.ca/Content/Committee/441/FOPO/Brief/BR11916741/br-external/AllardTony-WildFirst-e.pdf>.

^{xxvii} See KA Garver, GD Marty, SN Cockburn, J Richard, LM Hawley, A Müller, RL Thompson, MK Purcell & S Saksida, “Piscine reovirus, but not jaundice syndrome, was transmissible to Chinook salmon, *Oncorhynchus tshawytscha* (Walbaum), sockeye salmon, *Oncorhynchus nerka* (Walbaum), and Atlantic salmon, *Salmo salar* L.,” *Journal of Fish Diseases* 39:2 (2015), <https://doi.org/10.1111/jfd.12329>; Cross-examination on affidavit of Kyle Garver, August 29, 2018, pages 35-37.

^{xxviii} *The Narwhal*, “DFO ignored pleas from scientists, altered report to downplay risks to imperilled steelhead: docs”: <https://thenarwhal.ca/dfo-steelhead-scientists-emails/>.

^{xxix} According to the international case definition, HSMI is diagnosed by detections of lesions in the heart and skeletal tissues – no other symptoms or signs are required (see E Biering & ÅH Garseth, “Heart and Skeletal Muscle Inflammation (HSMI) of farmed Atlantic salmon (*Salmo salar* L.) and the associated *Piscine reovirus A* (PRV),” ICES Identification Leaflets for Diseases and Parasites of Fish and Shellfish, Leaflet No. 58 (2012) 6 pp, online:

https://www.ices.dk/sites/pub/Publication%20Reports/Disease%20Leaflets/IDDisease_58.pdf). The case definition for HSMI approved by the veterinarian workshop **added nine additional criteria** before it will consider diagnosing HSMI in an individual fish. Many of those factors (laboratory challenge trial, lesions reproduced in the laboratory, ongoing field investigation, population-level mortality



persisting) would require years of investigation and research. Normally, case definitions are the product of the peer-reviewed scientific literature – not the product of closed doors votes involving industry veterinarians. DFO allowed industry veterinarians, including the managing director of an aquaculture company, to vote on the case definition despite:

- If HSMI is diagnosed in British Columbia, then PRV, as the only causal agent for HSMI, is a disease agent.
- As a disease agent, aquaculture companies could not stock their feedlots with fish infected with PRV.
- Aquaculture companies have repeatedly fought this outcome in Federal Court, saying that it would cause them financial hardship.
- At least one of the industry veterinarians who voted in the workshop is a director of an aquaculture company. She would have fiduciary duties to her shareholders to protect their profits. A diagnosis of HSMI in British Columbia would be contrary to that duty.

^{xxx} Standing Committee on Fisheries and Oceans, Evidence Number 022 (March 24, 2021).

^{xxxi} See the letter here: https://krkosek.eeb.utoronto.ca/files/2023/02/Scientists-critique-of-DFO-CSAS-Response-Report-2022_045.pdf. See media coverage on the letter here:

<https://www.timescolonist.com/local-news/a-scientific-sin-16-canadian-salmon-scientists-claim-dfo-sea-lice-report-was-manipulated-6493604>; <https://vancouversun.com/news/local-news/fisheries-scientists-call-out-ottawa-for-flawed-sea-lice-report>; and <https://thenarwhal.ca/bc-dfo-sea-lice-report/>.

^{xxxii} Certified Tribunal Record in Federal Court File T-554-23, page 21.

^{xxxiii} Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River by Mr. Justice Cohen, available here: <https://publications.gc.ca/site/eng/432516/publication.html>.

^{xxxiv} Canadian Science Advisory Secretariat, Science Advisory Report 2020/012, “Recovery Potential Assessment for Fraser River Sockeye Salmon (*Oncorhynchus Nerka*) – Nine Designatable Units – Part 1: Probability of Achieving Recovery Targets, available here: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2020/2020_012-eng.html; and Canadian Science Advisory Secretariat, Science Advisory Report 2022/003, “Recovery Potential Assessment for Fraser River Sockeye Salmon (*Oncorhynchus Nerka*) – Nine Designatable Units – Part 2: Habitat, Threats Assessment, Mitigation, and Allowable Harm”, available here: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2022/2022_003-eng.html.

^{xxxv} Canadian Science Advisory Secretariat, Science Advisory Report 2020/023, “Recovery Potential Assessment for 11 Designatable Units of Fraser River Chinook Salmon, *Oncorhynchus tshawytscha*, Part 1: Elements 1 to 11”, available here: https://publications.gc.ca/collections/collection_2020/mpo-dfo/fs70-6/Fs70-6-2020-023-eng.pdf; and Canadian Science Advisory Secretariat, Science Advisory Report 2021/030, “Recovery Potential Assessment for 11 Designatable Units of Fraser River Chinook Salmon, *Oncorhynchus tshawytscha*, Part 2: Elements 12 to 22”, available here: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2021/2021_030-eng.html.

^{xxxvi} Canadian Science Advisory Secretariat, Science Advisory Report 2019/043, “Recovery Potential Assessment – Interior Fraser Coho (*Oncorhynchus Kisutch*)”, available here: <https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40864030.pdf>.

^{xxxvii} See Chinook Salmon (*Oncorhynchus tshawytscha*): COSEWIC assessment and status report 2020, available here: <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/chinook-salmon-2020.html>.

^{xxxviii} See report from Salmon Coast Field Station, “The status of Pacific salmon in the Broughton Archipelago, northeast Vancouver Island, and mainland inlets” (2020), available here: <https://salmoncoast.org/wp-content/uploads/2023/12/stateofthesalmon.pdf>.

^{xxxix} Pacific Salmon Commission, “Report of the Fraser River Panel to the Pacific Salmon Commission on the 2019 Fraser river Sockeye Salmon Fishing Season,” available here: <https://www.psc.org/publications/annual-reports/fraser-river-panel/>; Pacific Salmon Commission, “Report of the Fraser River Panel to the Pacific Salmon Commission on the 2020 Fraser River Sockeye



FIRST NATION
Wild Salmon Alliance

Salmon Fishing Season,” available here: <https://www.psc.org/publications/annual-reports/fraser-river-panel/>; Pacific Salmon Commission, “Fraser River Weekly Report,” September 17, 2021, available here: <https://www.psc.org/publications/fraser-panel-in-season-information/fraser-river-panel-weekly-reports/>; Pacific Salmon Commission, Sockeye and Pink Salmon In-season Status Reports, October 25, 2022, available here: <https://www.psc.org/publications/fraser-panel-in-season-information/sockeye-and-pink-salmon-in-season-status-reports/>; and Pacific Salmon Commission, “Report of the Fraser River Panel to the Pacific Salmon Commission on the 2018 Fraser river Sockeye Salmon Fishing Season”, available here: <https://www.psc.org/publications/annual-reports/fraser-river-panel/>.

^{xi} CSAS, Science Advisory Report 2022/003, “Recovery Potential Assessment for Fraser River Sockeye Salmon (*Oncorhynchus Nerka*) – Nine Designatable Units – Part 2: Habitat, Threats Assessment, Mitigation, and Allowable Harm,” pages 12 and 17-19; available here: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2022/2022_003-eng.html; and CSAS, Science Advisory Report 2021/030, “Recovery Potential Assessment for 11 Designatable Units of Fraser River Chinook Salmon, *Oncorhynchus tshawytscha*, Part 2: Elements 12 to 22,” pages 15 and 17, available here: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2021/2021_030-eng.html

^{xli} Mainland Enhancement of Salmonid Species Society 2022 Salmon Enumeration Program for DFO Area 12: Broughton Archipelago Musgamagw Dzawada’enuxw Territory, available here: https://www.messs.ca/files/ugd/2d934e_20c1dac48d3f496fb7d433323f430777.pdf.

^{xlii} Certified Tribunal Record in Federal Court File No. T-554-23.

^{xliii} <https://www.biv.com/news/resources-agriculture/updated-abysmal-year-fraser-river-sockeye-8272980>.