Restoring Fraser Chinook Salmon Workshop: Why are we here?

Context:

Over the past 25 years, salmon fisheries were significantly reduced relative to historic levels yet many salmon populations are not rebuilding, and many continue to decline. These declines have serious negative social and ecological implications for the human and biological communities that depend on salmon.

The causes of salmon declines are complex, and these factors are increasingly resultant from and exacerbated by the impacts of climate change.

We want to work with you to identify areas of research that warrant further investigation because of their high potential to limit our ability to inform salmon conservation and management.

However, we also want to recognize the challenges that currently make salmon science in the Fraser watershed less effective than it could be.

To start, we suggest that one of the key challenges we face is engagement. By this, we mean how we do our work with each other, our managers, our staff, our partners, and our clients. Collaboration is one component of effective engagement. By improving our ability to engage others and collaborate, we can:

- better recognize the multi-faceted aspects of what is causing some of our salmon to decline;
- broaden our perspectives and toolboxes with respect to potential management responses;
- figure out how to incorporate ecosystem and climate considerations into the work we do;
- improve recognition of the sociological 'structural' determinates of salmon outcomes (e.g. institutional factors such as governing process, jurisdictions, economic and social policies).

In other words, we think more effective collaboration is one way we can make our salmon science more impactful and relevant. As such, this workshop is intended as a building block towards understanding the need for and identifying tangible next steps toward improved engagement and collaboration.

By design, the workshop includes participants from the Science and 'management' branches within DFO (i.e. FM, SEP, EMB, FFHPP), the science staff and managers from First Nations who depend on Fraser Chinook, and the Province of BC. We included managers so they can share their perspective and so that the science practitioners can get a better understanding of the 'decision-making context'. That said, we also want managers to get a better understanding of the kind of hypotheses-driven questions that relate to choosing among conservation strategies. Therefore, this workshop promotes conversation, it is not a one-way information out event.

The Opportunities:

BCSRIF & CRRI:

The Chinook Recovery and Rebuilding Initiative (CRRI) is a First Nations-led collaborative project of the Fraser Salmon Management Council (FSMC), funded by the BC Salmon Restoration & Innovation Fund (BC SRIF), to support the urgent restoration of depressed Fraser chinook salmon populations.

FSMC brings together 76 signatory First Nations from the Fraser and approach areas, who committed to collaboratively managing Fraser salmon with DFO in the historic 2019 Fraser Salmon Collaborative Management Agreement. That agreement also established the joint (Tier 2) Fraser Salmon Management Board (FSMB), which has identified Fraser chinook rebuilding as a top priority for action.

A foundational premise of CRRI is that more technical collaboration and inclusion of Indigenous interests is required to reverse the current declines and to protect and enhance salmon biodiversity going forward.

PSSI:

With significant investments in Science through the Pacific Salmon Strategy (PSSI) initiative 'Improved Understanding of Salmon Ecosystems' there is an opportunity to expand and adapt our salmon science programs to better inform the current context of salmon conservation and management.

The goal of this initiative is to build a comprehensive understanding of habitat, ecosystem and climate change impacts on salmon production and productivity to support the development of strategic conservation strategies and management actions for wild salmon and the ecosystems they depend on.

Workshop Question: "What do we need to rehabilitate Fraser Chinook?"

Together, we want to tackle this question mainly from the perspective of:

Monitoring, Research and Assessment: What are we going to work on?
 More specifically: What areas of research warrant further investigation because of their high potential to limit our ability to inform salmon conservation? How do we better inform conservation strategies across the salmon life cycle that account for climate impacts? How do we mobilize and communicate knowledge?

But also acknowledging the challenges we face from:

 Logistics & Governance: What do we need to do the work? How do we work together and with others to accomplish this work?

More specifically: What are the implementation challenges? That is, the barriers that can make or break successful project implementation. What barriers impede effective collaboration? Challenges could include, for example, poor communication, ineffective meetings, committees, processes, lack of tools, training, inaccessible data, etc. Can we identify solutions that would enable us to work more collaboratively together and with others?

Workshop Format & Anticipated Outcomes

This workshop is going to be highly interactive. Action plans and recommendations will be created by workshop participants and the contents will rely on the knowledge and experience of those at the workshop. We do *not* have a draft plan for rehabilitating Fraser Chinook that we want feedback on or a specific project to create or limiting factor that we want the workshop to address.

While the focus of the workshop is on Fraser Chinook, due to the nature of the Fraser watershed and the salmon in it, we anticipate that many of the actions and recommendations will either be directly applicable to other salmon species (e.g., need for clean, cool, oxygenated water) or applicable with a bit of translation (e.g., temperature thresholds).

Day One of the workshop is designed to elicit ideas from participants on what is needed to rehabilitate Fraser Chinook; these ideas will be grouped into categories that represent broad approaches to Chinook rehabilitation which will then be prioritized; working groups will be formed for Day Two activities.

Day Two of the workshop is designed to explore ways to implement the priorities identified on Day One and define a plan that contains specific, actionable and measurable steps that can be taken. Based on the plans and next steps, the workshop participants will identify a list of recommendations that will be included in the final workshop report that can then be used by everyone interested in the rehabilitation of Fraser Chinook for work planning, to support funding requests, and find collaborators.

Planned workshop deliverables include:

- Workshop report that will contain:
 - o plain-language summary
 - o recommendations and next step actions
- Identification of winning conditions required for rehabilitation & recovery of Fraser Salmon
- Action plans that will support future planning, and support understanding of where and how you, your organization and your expertise fit into it