

Participants

Kelsey Campbell, Co-Chair

Maddie Thomson, DFO Co-Chair

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Elinor McGrath

Nicole Frederickson

Marc Labelle

Brittany Jenewein, DFO

Karen Burnett, DFO

Sydney Cappus, DFO

Max Veilleux, DFO

Colin Schwindt, DFO

Jacob Omajali, DFO

Bernette Laliberte

Andrew Maybury

Don Simpson

Pat Matthew

Welcome, Introductions

The meeting opened with agenda review and introductions.

Action Items

No action items from previous meeting but follow-up planned on several topics as per agenda.

IMAWG Update: SC Marine Rec & MSF Fisheries

Nicole Frederickson, IMAWG

Highlights of IMAWG presentation included:

- Presentation is a continuation of the Forum 2 PPT. It provides a high-level overview and is intended as a conversation opener.
- MSF Backgrounder: Key technical considerations.
- Timeline: DFO's implementation of MSFs.
- Map: DFO's MSF pilots in Mainland Inlets, Georgia Strait and Juan de Fuca, 2020 to 2023.
- 2024 update: recent fishery notice confirmed all existing MSFs would re-open, including new 2023 pilots (opening April 1 this year instead of May 3 as in 2023).
- DFO's Chinook management objective has focussed on protecting Spring 42s, 52s and Summer 52s, with the goal of maximizing spawners.
- Summary of DFO's evaluation of MSF pilots:
 - Area 12 pilot: evaluation identified need for better sampling and monitoring.
 - Hard to precisely estimate stock-specific impacts of MSFs, as catch reporting boundaries don't align exactly with MSF areas.
 - Summary of stock composition results: issues include low sample sizes, challenge of reliably estimating rare impacts based on limited sampling.
 - Area 13 pilot: Evaluation suggested low risk, based on historical catch and effort.
 - But actual catch/effort increased significantly and releases have also been high.
 - Catch composition: consistent small encounters of Fraser stocks of concern.
 - Area 15: Evaluation assumptions again based on past low effort, but significant increases in effort seen, with growing catch and releases.
 - Consistent record of Fraser stocks of concern encountered.
 - Area 20 Beecher Bay: Effort has been growing, especially in June and July.
 - Record of Fraser stocks of concern encountered.

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- Area 16 Sechelt/Jervis: Significant increase in effort, small number of Fraser stocks of concern encountered.

Discussion

- Q/A: Clarified that results shown are nominal samples (i.e. not expanded estimates). The point is it shows those stocks are present at that time of year.

Presentation, continued:

- New for 2023 pilots:
 - Area 19 Victoria/Haro Strait: Preliminary stock composition results for 2023.
 - Area 17-19 Gulf Islands/Saanich: Preliminary stock composition results for 2023.
- Reference fishery results: Ratios of marked/unmarked overall and for legal, sub-legal sizes for each pilot.
- 2024 Reference Fishery Update: Reference fishery started April 1; planned schedule.
- MSFs: Summary of key points and unknowns.
- Next steps.

Discussion

- Available info is not sufficient to provide valid estimates, with confidence intervals, of pilot fishery impacts on Fraser Chinook. That would require a properly-designed stratified sampling program — a gap which DFO has acknowledged.
 - JTC has discussed that sample sizes of 300 - 500 would be required for reliable estimates, and that sampling rates should be increased wherever possible.
 - Key challenge is required sample sizes would result in unacceptably high mortality.
- FSMB has approved sharing of JTC's MSF memo, as requested, so JTC is finalizing edits.
- Q/A: DFO to follow up re whether Fall 41 samples are Harrison or Chilliwack. **ACTION**
- Request that DFO also share expanded results of sampling. **ACTION**
 - There is some expanded info available for 2021 and 2020. Note that MSF impacts are included in total estimates in the FMI analysis.
- Why is DFO expanding sampling program to areas without MSFs, instead of boosting required sampling in pilot areas?
 - Note the proposed area aligns with a proposed SFAB Howe Sound fishery.
- Concern that FRIM impacts from other non-retention fisheries happening throughout the Gulf from April to July are not being quantified.
 - CTC has been discussing these MSFs and the large increase in releases. CTCs ER analysis was updated to address some errors identified, and this changed ER estimates for some Fraser stocks, including Harrison. CTC reports available online.
- Q/A: Catch data for MSF fisheries is from creel surveys, reference fishery (mainly to get info on releases), plus from the Avid Angler program.
- Q/A: The FMI analysis is based on GSI, not CWT data, and provides an index only.

June Visions/JTWG

Co-Chairs gave a brief update of planning for the June Visions conference and JTWG meeting. Key topic for JTWG is a “deep dive” review of the run reconstruction model.

Coho Update

Maddie Thomson, DFO

Presentation highlights included:

- PST Chapter 5 overview. Coho Technical Committee and Management Units.
- Overview of FRAM (Fishery Regulation Assessment Model) used to estimate fishery impacts and manage fisheries. Model is run pre-season and post-season.
 - Explanation of how the model works; assumptions and uncertainties.
- Q/A: Coho is simpler than Chinook to model (age structure) but CWT assumptions may be affected by non-equivalent ERs due to MSFs.

ACTION: DFO to report back on natural mortality component of Coho FRAM model.

- Recent ER calculations (2022 report): overview of annual ER report and tables.
 - Table 1: Pre-season modelled ERs.
 - Table 2: Modelled ER for Canadian and US fisheries.
 - Table 3: ER by fishery for modelled stocks.
- Recent ER calculations: DFO does a further breakdown of fishery impacts (e.g. BC Fraser FW and sport impacts split into 16 separate fisheries), using “decay Model,” which estimates relative proportion of Lower Fraser and IRF coho present based on historical data.
 - Table summarizing detailed breakdown of Canadian impacts.
- 2014: Summary of results of measures that were intended to provide added flexibility to permit commercial access to abundant Fraser sockeye return.

Discussion

- If the intent was to support commercial Fraser sockeye access, why did the sport fishery have the greatest impact in 2014?
 - DFO’s Salmon Allocation Policy gives sport priority over commercial for coho so DFO needed to also loosen restrictions for rec fisheries.

Presentation, continued:

- Recent ER calculations — returns: Abundance has been increasing in the last 4 years.
- Future fishery planning: DFO sought feedback on suggestions to increase the current ER cap for IFR coho to support FSC opportunity but so far only received one proposal for a Five Nations sale fishery.
- DFO has a science request for improved tools to plan coho fisheries: It’s still early stages and expected to take several years. Intent is to involve CSAS and First Nations in this work.

Discussion

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- Q/A: DFO intends to build on the current SoG coho assessment fishery but has not decided if it will review survey design or just the data produced.
 - Request that First Nations be involved in developing terms of reference for this work.
- Re-opening the SoG recreational coho fishery could have a profound effect on juvenile Chinook rearing over summer months.

Presentation, continued:

- IFR Coho status table and conditions/benchmarks. At least 3 more years before status could be raised from Low to Moderate. Escapement target has been met, but not marine survival.

Discussion

- How variable are actual catch numbers (not ER).
 - DFO can create and share a table of actual catches (request is for a detailed Excel table). **ACTION**
- Lower Fraser also plans to submit a coho proposal. Where do such requests go?
- FSMB should be involved in evaluating requests.
 - DFO has not established an evaluation plan but is open to discussing it.
- Q/A: CWT recoveries for 3 indicator populations relative to hatchery releases is the basis for estimating IFR Coho survival index.
- Why were ERs higher in 2018 and 2019?
 - 2018 was a sockeye year. Also seen increased impacts in WCVI sport.
- Request for more detail from DFO on the planned evaluation process for 2024 proposals (for planning and post-season).
- Given there is only one proposal, what is the basis for the draft IFMP reference to increased interest in raising the ER?
 - DFO: So far DFO has only received the Five Nations proposal. DFO has not requested recreational fishery proposals.
- Interest in more detail on data sources for the presentation. Note that IFR coho measures have afforded important protections to other stocks of concern.
- Q/A: The ER caps apply to wild fish only. Selective terminal FSC fisheries would not affect the ER cap.
- DFO to confirm reporting timeline for providing the requested information.
- Proposed that this should be an FSMB decision, given its important relevance to questions around FSC access and priority.
 - Question whether there is need to revisit the 2008 coho injunction and negotiations stemming from that.
 - These questions will be shared in Tier 1 with FSMC and other reps.

Fraser Chinook Run Reconstruction Review

Maddie Thomson, DFO

DFO gave an overview of the RR file structure, noting that file updates will be shared when available.

- This does not include marine impacts — just reconstructs to the mouth of the Fraser.
- Explanation: Adjusted/Not adjusted relates to Big Bar impacts and how that affects estimates.
 - Proposed that DFO provide a “boxcar” example for a single stock, showing how impacts are added in steps going back to arrive at the terminal estimate, using known migration timing (assumed based on telemetry studies and CWTs) to estimate fishery impacts at each stage and to add those back in to get a cumulative estimate of how many entered the river (maybe provide data-rich and data-poor examples). Other key questions include en route mortality and infilling.
- Provide a review of assumptions, limitation and uncertainty in the model.
- DFO reviewed the list of input files, explained how to run the model on your own computer using these files; and the list of output files (results for each fishery).
 - Example of RR output file: note that fisheries 1-23 cover mainstem only. Totals include tributary fisheries.
- Suggestions invited for questions to be addressed in the June presentation.

Discussion

- Interest in how RR outputs are used in management.
 - DFO can include a list of uses/applications in management for June. Don't believe this is used internationally (they use CWT indicator stocks, escapement estimation programs by UFFCA and others).
 - The RR gives us harvest rates for in-river fisheries, so is used to manage fisheries in-river (e.g. in tools like ChiAPET). It's also used in FMI, with impacts expanded to include marine areas.
 - It would be helpful to provide a schematic of RR and how it's used.
- ChiAPET was developed to support in-season decision-making for the former zoned management approach for Fraser Chinook. It relies on projections for weekly fishery impacts based on historical harvest estimates.
- Question about a list of assumptions (original CSAS report is very old and does not include all assumptions).
- Are potential migration timing shifts worth investigating?
 - Yes, there is some evidence that run timing assumptions are quite simplistic so differences in actual migration patterns could significantly affect model outputs. The US is using a more sophisticated approach (fitting the model to the data) — so maybe look at that too? Certainly worth reviewing the assumptions, given significant

implications for culturally important fisheries. A lot has been built on this RR model, and the model itself is not solid.

- These questions will go to DFO/Chuck. JTC may also be doing some work on this, so propose they coordinate with JTWG.
 - JTC work plan includes a proposed audit, so that would be in parallel to JTWG review, and may include a joint deep dive technical analysis.
- JTWG reps invited to share additional suggestions with Maddie.

Review of JTC's FMI Memo

Aidan Fisher, JTC Co-Chair

Presentation highlights included:

- JTC's FMI Memo was prepared for the Board as a concise summary and is focussed on management issues relevant to FSMB's work.
- It reflects a first attempt to start standardizing JTC outputs/communications, which will include protocols for sharing outputs more widely and in a more timely fashion. JTC expects that most such reports will be widely available in future (both FSMB parties support that), but it's been challenging, especially initially, to establish communications protocols and finalize consensus language for these documents.
- Review of the FMI (Fisheries Mortality Index) memo summarizing results of JTC's joint analysis, including key results, uncertainties and recommendations.

Discussion

- Q/A: JTC has a procedure for flagging points of disagreement, but there were no major points that remained unresolved on this topic.
- Q/A: Any decisions on following up the JTC recommendation rest with the Board.
- FN technical participation in the FSAR process is very important, as those have potential to significantly influence management decisions.

ACTION: Anyone interested in FSAR participation can contact Maddie.

- Q/A: Re the new "sprint week" approach to quick/iterative CSAS annual reviews, questions include whether the input and methodology being used are CSAS-approved.
 - The process does feel rushed. There are also questions about implications wrt to the new regulatory(Fish Stock Provisions) requirements.
 - DFO: It is a new approach that we're trying. The FSAR is intended as a new template that would support regular updates. DFO welcomes feedback on the new approach.

ACTION: Share FSAR invite request contact: DFO.PacificCSA-CASPacificque.MPO@dfo-mpo.gc.ca

- Timeliness of technical information is a significant concern.
 - FSMB is also grappling with how to use its limited time most effectively, given the risks of any one topic dominating limited available time and capacity.

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- Establishing limit reference points for CUs, DUs and SMUs will be a significant step. Once those are in place, applying those can in some cases proceed quite rapidly.
 - Still unclear if there is agreement re the CSAS paper recommending that if one CU is below the LRP, the entire SMU would be rated accordingly.
- Useful to separate technical from process questions wrt the FSARs, establishing LRPs, FSP implementation, etc. and to ask the appropriate DFO person to provide answers, either to JTWG or Forum.
 - **ACTION:** Brittany to lead follow up to summarize and direct FSAR questions to DFO internally.

2024 Management: Chum & Steelhead

Maddie Thomson, DFO

PPT intent is to review Forum presentation and flag any technical issues/questions.

- 2024 Management: DFO responded to concerns by changing regulations to start the season with recreational non-retention for Chum (instead of permitting retention) until an in-season run size estimate is produced (~October 10).
- IFMP identifies benchmarks for rec fisheries to open.
- Q/A: Rec fishery opening would be based on JS abundance (over 1 million). Not aware of significant disconnect between JS and Fraser Chum estimates historically.

ACTION: Brittany to check historical records for potential discrepancy between Fraser and JS Chum in-season estimates (and what would happen in that scenario).

- 2024 Steelhead window closures. DFO has shared one of the requested documents that provided rationale for the steelhead window closures. **ACTION:** Maddie to share the second steelhead rationale document.
- Albion chum net starts September 1. In-season estimates are shared via fishery notices.

Discussion

- Will there be measures to curtail recreational fishery access and damage to spawners in the tributaries in adverse environmental conditions (e.g. drought, heat waves)?
 - DFO has a drought response team (Amy Wakelin lead) trying to develop a response plan and fishery measures for drought/extreme conditions, although it's challenging to develop consistent measures given the unpredictability. They are asking community members to report concerns as they occur. The team is working with local First Nations and with staff from DFO's Fish & Fish Habitat Protection program.

ACTION: DFO to confirm where community members should report such concerns.

- We need a proactive drought response plan starting right now, not waiting until August, and for Sockeye and Chinook as well, not just Chum.
- The issue of mitigating damage and limiting access to spawning grounds during very low water has been raised repeatedly, but no one takes responsibility.

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- Agree the Forum can provide advice on where to refer this for a solution, given the multi-jurisdictional challenges.
- Agree we need to provide clarity re the in-season response and how this will occur. It's a big concern and we've repeatedly seen that it doesn't really happen in season.
 - Nations are collecting very good information, but there is still a disconnect in information sharing, coordination and how that informs a direct response, e.g. what are the triggers. This may warrant a separate workshop with DFO, nations and the Province.

JTWG Tier 1

(In camera)

Adjourned: 4:10 pm