

# Fraser and Approach Salmon Management Forum Technical Session Update

March 3, 2021

**Fraser Salmon  
Management  
Council**

**Canada**  
 Fisheries and Oceans Canada / Pêches et Océans Canada

# Forum Technical Session

- Occurs one day prior to the FSMC Forum
- The goal of the forum technical session is for First Nation and DFO technical staff to share technical information and get clarification on same as needed
- The agenda for the technical session is informed by two key items:
  - Requests from participants
  - The agenda for the FSMC Forum

# Technical Session Monday March 1

1. 2021 Sockeye and Pink Forecast – Brooke Davis
2. Environmental Supplement – Brooke Davis
3. 2021 Sockeye and Pink Draft Escapement Plan – Jamie Scroggie
4. Chinook Management Approach – Brittany Jenewein, Wilf Luedke, Kevin Pellet, Pieter Van Will
5. Planning for April Forum

# Sockeye and Pink Forecast 2021 – Changes in Methodology

- Presented by Brooke Davis (Analytical Biologist from DFO Stock Assessment); presented the 2021 Sockeye and Pink Salmon forecast
- The group was mainly interested in changes to the forecast methodology compared to previous years; incorporation of recent poor productivity was also discussed
  - Sockeye forecasts hadn't changed much over the 2020 process; incorporated environmental covariates (temperature) to account for recent poor productivity
  - New metric introduced (posterior quantile) to demonstrate where a given model's productivity fell compared to recent productivity
  - The group spent time looking at a few specific stocks in detail to gain better understanding of the model selection and posterior quantile assessment
  - Pink forecast in 2021 has changed substantially over 2020 (covered in detail next slide)

# Sockeye and Pink Forecast 2021 – Changes in Methodology

- Changes to the Pink forecast in 2021
  - ‘normal’ Pink forecast uses juvenile outmigration data collected in March of the preceding year; March 2020 was early in the covid-19 pandemic and normal data collection was not possible
  - In 2021 escapement data was used to predict the Pink return; a model with environmental covariates was selected
  - The process (model selection, retrospective analysis) was reviewed in a high level of detail by the group
  - The group noted the low forecast and discussed the influence of poor environmental conditions

# Environmental Supplement

- Normally a supplement is prepared by the State of the Salmon group; this year staffing issues have prevented the preparation of a full supplement, so Brooke presented a smaller overview of environmental information relating to multiple salmon life history stages
- The group reviewed the available environmental data and discussed its relation to the forecasts for Sockeye and Pink

# Sockeye and Pink Escapement Plans 2021

- Presented by Jamie Scroggie (Area Chief, Fraser Interior Area); Jamie presented a summary of the escapement options for both Sockeye and Pink that have been included in the Draft Southern IFMP
- The group discussed the forecasted poor returns and the effect of poor run size on the proposed escapement plans
  - There were some discussion about the current TAM curves and the need to update them (this ties in to ongoing FRSSI work)
  - The group also discussed the need for creativity in management during periods of low Sockeye returns

# Chinook Management Approach

- Brittany Jenewein, Wilf Luedke, Kevin Pellet, and Pieter Van Will (all DFO biologists) were present to answer questions pertaining to the Chinook Evaluation Framework first presented on Friday Feb. 26 to a broad First Nations audience
  - They went over some specific examples from some proposals outlined on Friday (Area 19 and 20; Victoria and Juan de Fuca) and reviewed the presentation slides, word document, and underlying data that fed into the summaries
  - The biological data reviewed included base period timing, estimations of effort, mark rates by area, stock distribution, and catch data
  - There were significant discussions about DFO process and communication challenges
- There was a request for DNA data from 2020 to be discussed as the next forum JTWG if available; if not available, set up an additional webinar



# Agenda Planning for April

- Review the results of the Fraser Chinook Run Reconstruction
- Review DNA data from Chinook fisheries in 2020
- Review the work by Carrie and Kendra Holt (DFO) on new Limit Reference Points
- FRSSI and Sockeye RPA (not discussed explicitly at this meeting, but raised at the Feb. meeting)
- Additional agenda items pending the agenda for the April forum