



WATERSHED TALK

NEWSLETTER

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2020 FRASER SOCKEYE UPDATE

By: Aidan Fisher, FSMC Biologist

To date the Fraser sockeye run is trending substantially below the 2019 Fraser sockeye return. Stock ID and test fishery data indicates the sockeye run may be slowing and nearing completion through the marine approach. The Fraser Panel has shut down marine test fisheries as catches have been extremely low. Unless there is a major amount of Fraser sockeye seaward of the marine approach areas, 2020 will likely be the lowest return on record and significantly below the 2019 return. It should be noted that we are still early in August, and anything can happen, but the information flow to date has indicated that there is likely not substantial abundance of Fraser sockeye seaward of the in-season estimation programs.

The Fraser Panel adopted an in-season run size of 169,000 for Summer run sockeye, and 28,000 for Late run sockeye. This result in a total Fraser sockeye run of 275,000. Based on the estimates to date even an in-season run size of 275,000 Fraser sockeye would require an additional 80,000 Fraser sockeye seaward of the estimation programs (test fishery and hydroacoustics).

Mike Hawkshaw provided a substantive update to the Fraser Panel about the work to date at Big Bar.

This summary table will be updated throughout the season as information and decisions become available.

Sockeye Management Group	In-Season adopted run size / Pre-Season Planning Forecast (p50)	In-Season Estimate of Abundance (Catch:Escapement)	In-Season Adopted Run Size	Area 20 Timing for 50% of run (Preseason)
Early Stuart	14,000 (13,000)	13,400 (100:13,300)	July 7	(July 4)
Early Summer	72,000 (218,000)	55,700 (1,100:54,600)	July 17	Preseason (July 24)
Summer	169,000 (611,000)	74,800 (2,300:72,500)	July 27	Preseason (July 31)
Lates	28,000 (99,000)	2,600 (100:2,500)	August 15	Preseason (Aug 6)
TOTAL	275,000 (941,000)	146,500 (3,600:142,900)		Preseason (July 30)

Big Bar Slide

The Whoosh™ fish passage equipment is operational, with 6 tubes to transport Fraser salmon over the Big Bar slide. Sockeye and chinook have been Whooshed over Big Bar. Sonar counts are operational and have seen some better passage as discharge has been falling. Some initial tagging results have become available and are showing some fall back by transported fish. Visual identification of chinook have been observed passing the slide. Sockeye have been observed attempting to pass, but have not been visually identified passing the slide via the nature-like fishway. Work is ongoing to assess and minimize fall back from transported fish over the slide via active transport, as well as assisting natural migration at Big Bar.

If you are interested in more details about the Big Bar Slide, a technical briefing is developed weekly by the tripartite management group (link below). Mike Hawkshaw's presentation is also available in the latest Fraser Panel distribution.

Early Stuarts

Early Stuart are forecasted at 13,000 (P50). 13,400 Early Stuart sockeye have been observed to date. The Fraser Panel adopted an in-season run size of 14,000 Early Stuart sockeye. This is not sufficient abundance to implement directed fisheries for Early Stuart, they will be managed to the LAER of 10% of the in-season adopted run size.

There have not been any additional Early Stuart sockeye observed over the past week.

Early Summers

Early Summers are forecasted at 218,000 (p50). To date we have observed 57,700 Early Summer sockeye, and the Panel adopted an in-season run size of 72,000. The test fishery data seems to be showing dropping proportions of Early Summer as the run seems to be finishing up.

Summer Run

Summers are forecasted at 611,000 (p50). To date we have observed 74,800 Summer run sockeye, and the Panel adopted an in-season run size of 169,000. The test fishery data seems to be dropping proportions of Summer run sockeye, indicating the end of the run.

Late Sockeye

Lates are forecasted at 99,000 (p50). To date we have observed 2,600 Late run sockeye, and the Panel has adopted an in-season run size of 28,000. The Panel is expecting to further reduce the run size of Late run sockeye based on the information to date as they are trending below the p10 forecast.

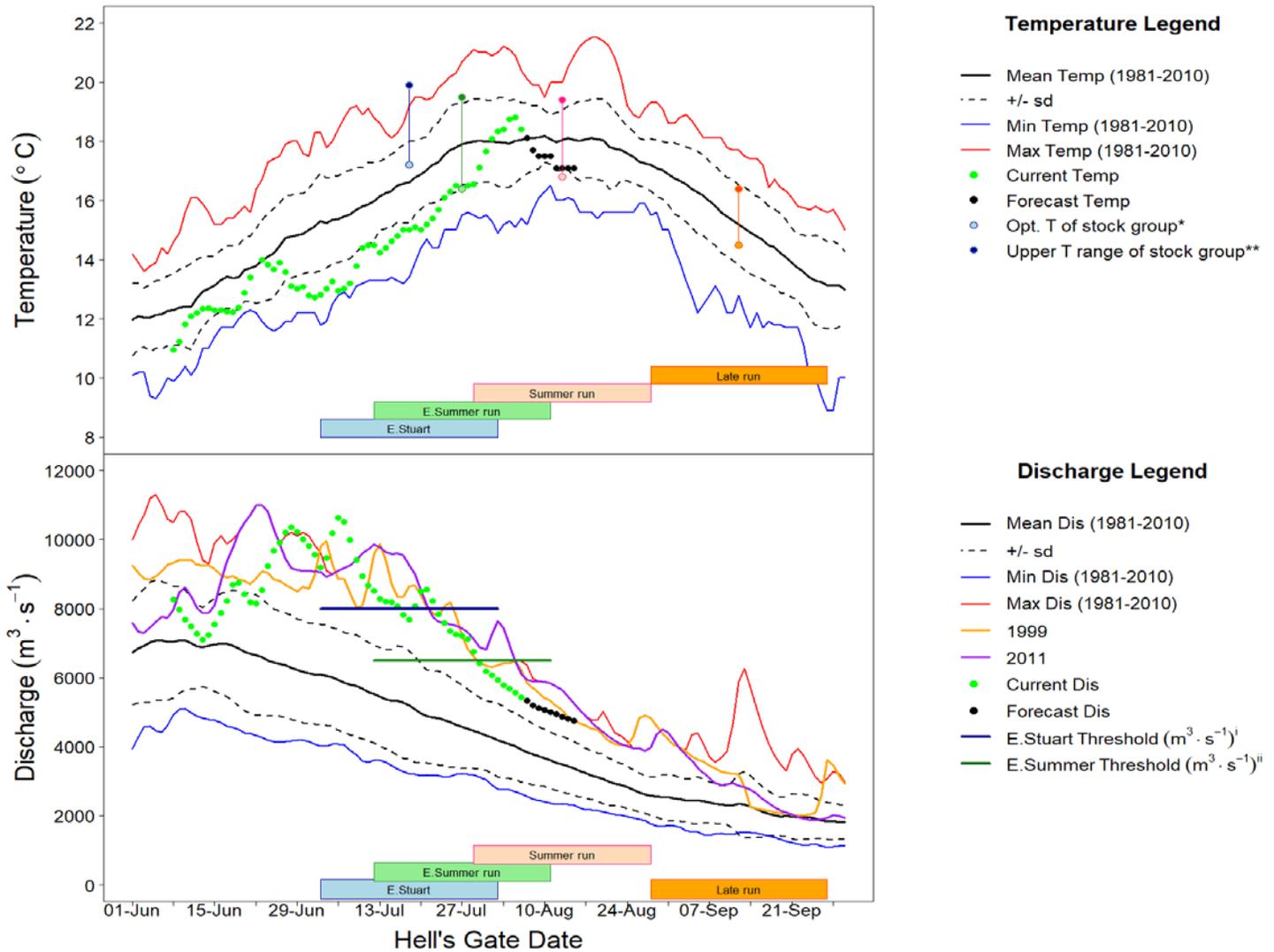
Fraser River Conditions

The main source of information for Temperature and Discharge data and forecasts is DFO's Environmental Watch Program (see link below).

The BC River Forecast Centre website (see links below) has information and links related to discharge and temperatures at various monitoring stations throughout the Fraser watershed, including snow pillow and melt updates.

Environment Canada's Water Office webpage provides access to real time hydrometric data at many locations throughout the Fraser watershed (see links below).

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution August 7th, 2020):



Temperature has jumped last week but returned to below forecast. River discharge is high and forecasted to remain high. Discharge rates affect migratory success of Fraser sockeye. Discharge rates also remain a point of interest for natural passage over Big Bar.

Fraser River Fisheries Information

Fraser First Nations Fisheries information can be found on the DFO website at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html>

DFO staff will be distributing Fraser Salmon Bulletins, and we strongly encourage people to review and comment on the DFO bulletin if time and resources permit. Contact your local DFO Resource Manager for a copy, and addition to the distribution list.

Fraser Sockeye Salmon

The Pacific Salmon Commission (PSC) distributes the Fraser River Panel meeting agenda and technical information for Panel members and observers to the process. The following information is a summary of key information from that document (August 7th, 2020) and the Fraser River Panel meeting from the same day.

Diversion rate through Johnstone Strait has increased again, tracking above the forecast at 54% the past 5 days.

Stock Identification

Stock ID proportions are dominated by Summer run sockeye. Early Summers are present in lower proportions and have been dropping since last week. The new appearance of Late run sockeye in marine test fisheries is indicating the end of the Fraser sockeye run is approaching faster than expected.

In-river test fisheries are also showing trace amounts of Late run sockeye, indicating they are still mostly in the marine approach. The largest proportions are still Summer run sockeye for the in-river test fishery catches.

Test Fisheries

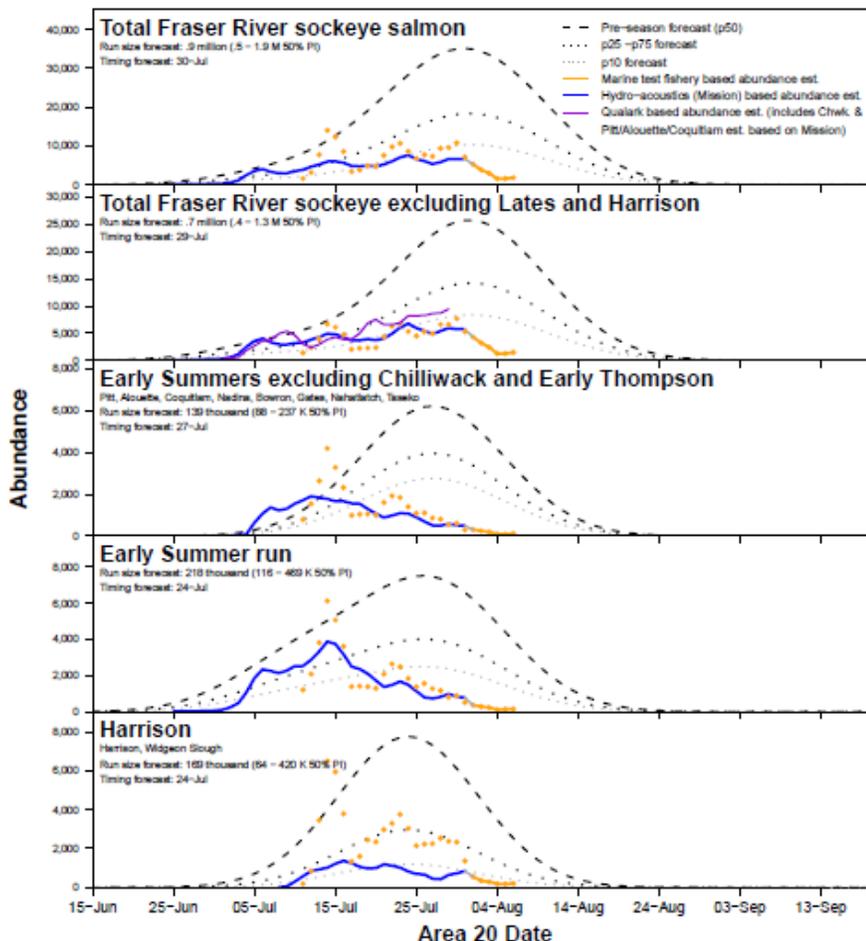
All marine approach test fisheries have been halted and Cottonwood has also been halted. The only test fisheries that are continuing are Whonnock and Qualark to continue to inform the hydroacoustic programs. Catches have been low consistently in all test fisheries.

The Panel decided to close marine test fisheries because the catches were extremely low and there is a very low likelihood of sufficient abundance for international sockeye directed fisheries.

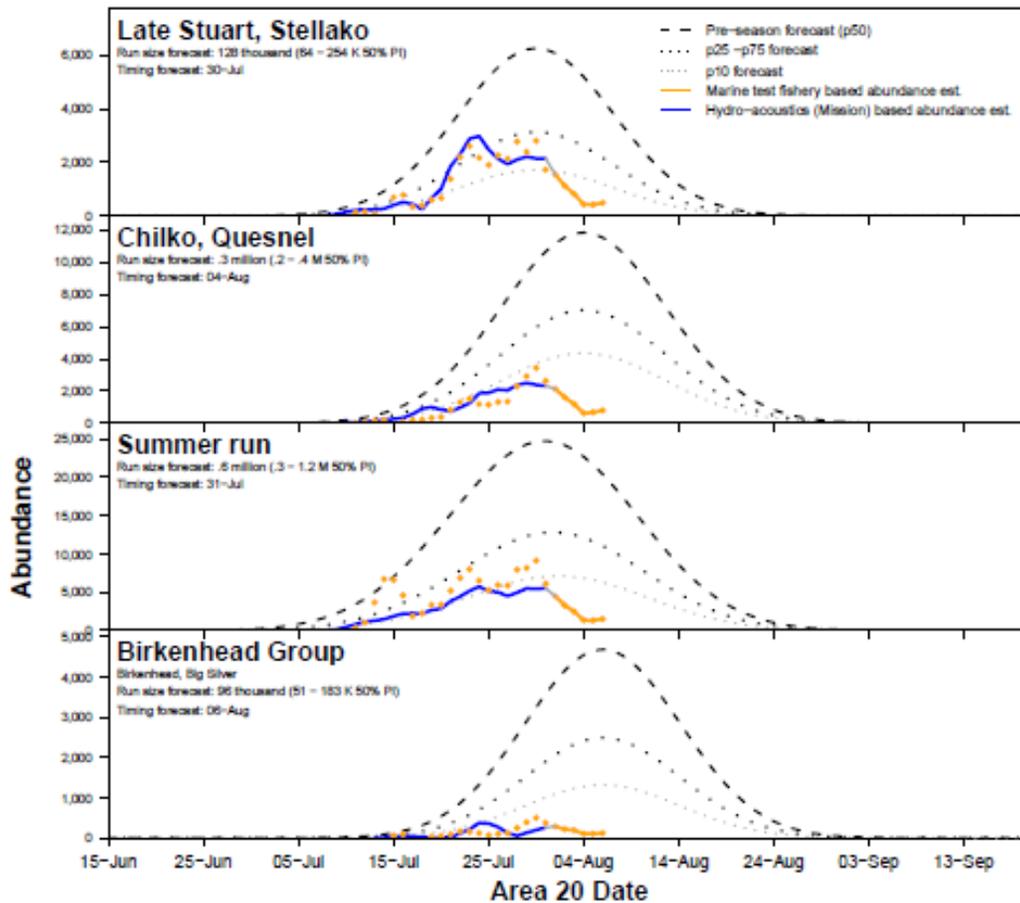
Hydroacoustics

Qualark is still producing estimates higher than Mission. The source of the difference between the two estimation programs is still unknown and will be investigated now and in the post-season. Daily passage estimates are Mission are very low, and have not increased over the past 2 weeks from the 4,000-6,000 fish daily. If there was an abundance of Fraser sockeye, the larger proportions of Summer run sockeye would be accompanied by larger hydroacoustic passage estimates.

Test fishing graphs and Mission hydro-acoustics information from the PSC distribution package:



Estimated Abundance and In-Season Timing Compared to Forecast



The next Fraser River Panel meeting is scheduled for 11AM Tuesday July 21st.

Fraser River Panel Schedule:
Tuesday and Friday 11am.

Please join the meeting from your computer, tablet or smartphone.
<https://global.gotomeeting.com/join/513559997>

You can also dial in using your phone.
United States (Toll Free): [1 866 899 4679](tel:18668994679)
United States: [+1 \(571\) 317-3117](tel:+15713173117)

Canada (Toll Free): [1 888 299 1889](tel:18882991889)
Canada: [+1 \(647\) 497-9373](tel:+16474979373)

Access Code: 513-559-997

Links

With Chinook and sockeye approaching and in the Fraser, these links may be of interest:

BC River Forecast Centre Website: <http://bcRFC.env.gov.bc.ca>

Environment Canada's Water Office Website: http://www.wateroffice.ec.gc.ca/index_e.html

Pacific Salmon Commission Website: www.psc.org

Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm

Pacific Salmon Commission News and Regulatory announcements: <http://www.psc.org/publications/fraser-panel-in-season-information/fraser-river-panel-regulatory-announcements/>

Fraser River Mission Escapement Reports: <http://www.psc.org/publications/fraser-panel-in-season-information/fish-passage-past-the-psc-hydroacoustic-counting-station-near-mission-bc/>

Fraser River Environmental Watch Reports: <http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html>

The Albion Test Fishery information can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/docs/commercial/albionchinook-quinnat-eng.html>

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