



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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2018 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

Two major things that have come up on today's Fraser Panel call were warm river temperatures and an Early Summer run size of substantially less than p50. Based on the in-season information to date the Early Thompson abundance is far below median forecast. There was discussion on decisions regarding the high water temperatures and low river discharge that are currently being observed throughout the Fraser. Ultimately, the Panel decided to hold off on a management decision on in-season abundance for Early Summers and a change to the pMA until there is more information next week.

The lull that the test fishery experienced last week seems to have passed and test fishery catches have started to catch up with pre-season forecasts for some MUs. Commercial fisheries have also started up in Canadian and US marine waters, total commercial catch to date of 854,090. Due to ongoing fisheries, the Mission hydroacoustic data needs to be adjusted for fisheries removals. Qualark hydroacoustic site has also observed greater than 100,000 daily passage of sockeye.

Based on the observed temperature and discharge, the pMA and DBE are likely to be greater than preseason forecasts. The panel was presented outputs from the pMA forecast model to account for high river temperatures a known factor in en route and pre-spawn mortality. On the ground observations of sockeye conditions seem to be relatively strong, around 90% are looking healthy. It was noted that in the last few days poor condition sockeye do seem to be increasing. This will be tracked throughout the season.

The recent test fishery catch in Area 20 has substantially affected the tracking of almost all the stock groups. Test fishery catches are starting to look like the Early Summers are coming in earlier than forecast and smaller than the p50 forecast.

The small Panel approved commercial fishery was put forward and approved through the weekend in the US (4b56c fishery). Canada communicated that they intend to put forward a 16 hour Area E fishery Wednesday, but the fishery approval will occur on Tuesday. Canada also informed the Fraser River Panel of the ongoing Non Panel fisheries in Area D, B and H.

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

Sockeye Management Group	Pre-Season Planning Forecast (P50)	In-Season Adopted Run Size	pMA (preseason / in-season)	Area 20 Timing (for 50% of run)
Early Stuart	84,000	125,000	0.69	July 5

Early Summer	2,155,000	N/A (too early for run size update)	0.23	Preseason (August 8)
Summer	4,344,000	N/A (too early for run size update)	0.10	Preseason (Aug 11)
Lates	7,398,000	N/A (too early for run size update)	0.43	Preseason (Aug 17)
TOTAL	13,981,000	N/A (too early for run size update)		Preseason (Aug 14)

Proportional Management Adjustment (pMA)

Due to high water temperatures and low river flows, it is very likely the Fraser River Panel will increase the pMA for Early Summers and potentially for Summers. The current pMA for Early Summers is 0.23, meaning Spawning Escapement Target (SET) is increased by 23% to account for en route loss. When the pMA is increased, it will increase the amount of sockeye required to meet the SET, the proposed increase for Early Summers on the Fraser River Panel call was 1.00 for Early Summers, or an increase to the SET by 100%.

Early Stuarts

To date, 123,200 Early Stuart sockeye have been accounted for in catch and escapement. This is below the in-season adopted run size, that was decreased earlier this week to 125,000. The Fraser River Panel has decided not to adjust the in-season run size for Early Stuarts.

Early Summers

Early Summers are forecasted at 2,155,000 (P50). To date the Mission hydroacoustic passage has accounted for 553,500 sockeye and a downstream catch of 264,500. An initial in-season run size was put forward by PSC staff, 1,363,000 Early Summers with a median run-timing date of August 2 and adjusting the pMA to 1.0 from 0.23. This recommendation would have severely reduced the commercial TAC available for Early Summers. The Panel did not adopt the recommendation put forward by PSC staff and decided to wait for a few more days before putting forward an in-season run size for Early Summers.

Early Summers are currently tracking below p50 forecast, and closer to the p25 forecast. This is driven solely by lack of abundance of Early Thompson which is the driver of abundance in the Early Summer MU. The other Early Summers have returned close or above their p50 forecast, although they make up a less than half of the MU forecast abundance.

Summer Run

Summers are forecasted at 4,344,000 (P50). To date the Mission hydroacoustic passage has accounted for 566,000 sockeye. It is still too early for an in-season run size estimate for this management group. Overall, the Summer run aggregate has picked up due to marine test fishery catches of the last few days. We still have to confirm the larger catches from the marine test fisheries at the in-river hydroacoustic site, by including these catches the in-season abundance is now tracking closer to the p50 forecast than the p25 forecast.

Late Sockeye

Lates are forecasted at 7,398,000 (P50). To date the Mission hydroacoustic passage has accounted for 94,400 sockeye. It is still too early for an in-season run size estimate for this management group. Lates are now showing up in all fisheries in notable proportions. Specifically, DNA information collected in the Area 29 troll fishery make up 60% of the samples. This is indicative of sockeye holding off the river mouth, as expected.

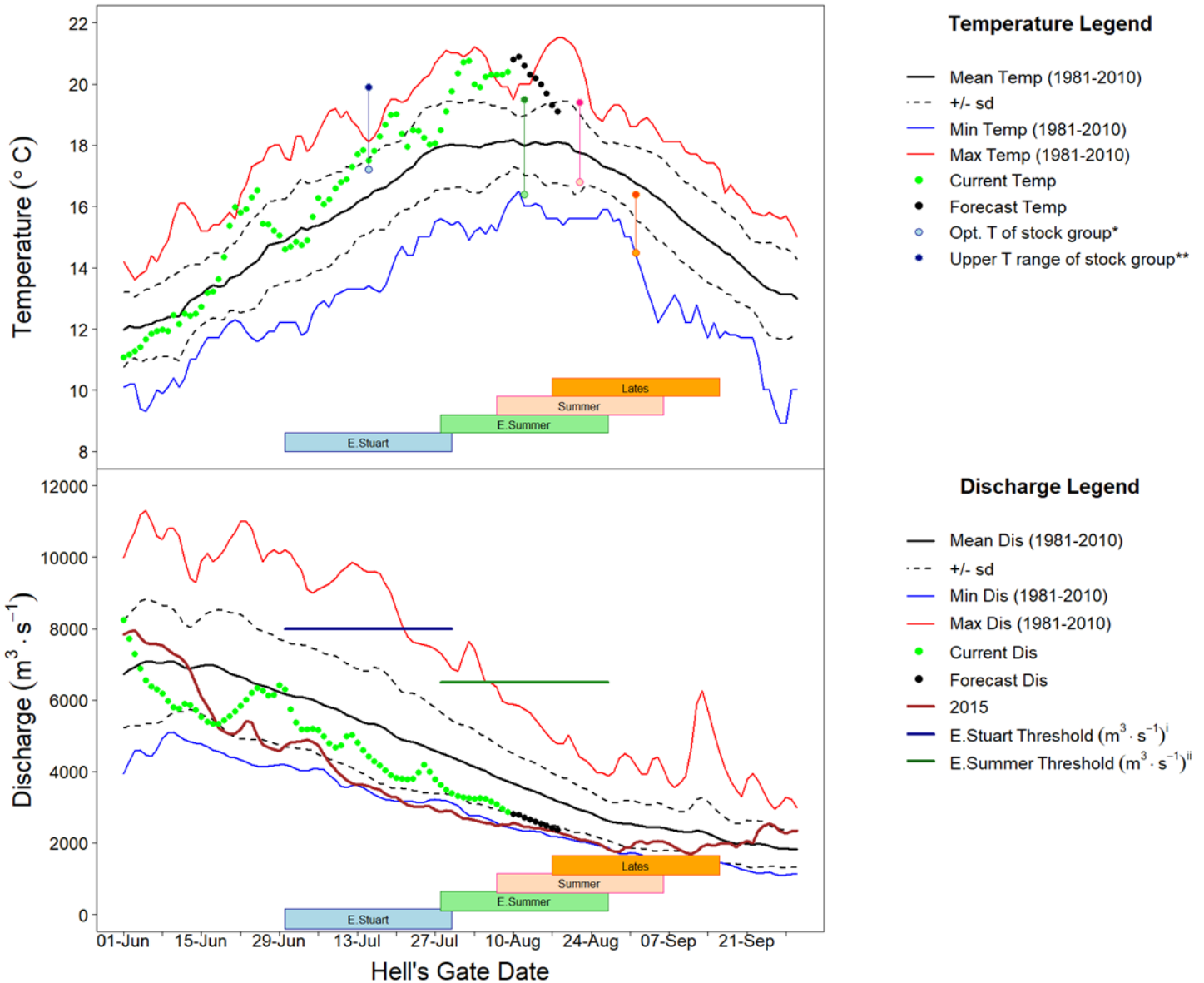
Fraser River Conditions

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 10th, 2018):



The observed and forecasted river conditions are continuing along the trends predicted last week. This will affect the in-season pMA.

The Fraser River water temperature at Hope is currently 20.4 degrees Celsius on August 9 (2.3 degrees Celsius above average for this time of year) and is forecast to decrease to 20.0 degrees Celsius by August 15. The Fraser River discharge is very low

at 2,881 m³/sec at the Qualark water station on August 9 (23% below average for this time of year). The discharge is predicted to continue tracking below average but within the usual annual variation, with a forecast discharge of 2,537 m³/sec by August 8th.

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 have distributed 15 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 10th, 2018) and the Fraser River Panel meeting from the same day.

Fish passage past Hell's Gate remains strong for this time of year. Mission hydroacoustic estimates of daily passage have also picked up lately, over 100,000 for a few days. Mission hydroacoustic estimates have not been impacted by fishery removals, which decrease the estimates of passage and must be accounted for elsewhere to project in-season abundances.

Diversion Rate

Diversion rate through Johnstone Strait has dropped off dramatically (5-day average = 30%) and is indicative of greater than expected (forecast = 63%) migration around Vancouver Island and through Juan de Fuca.

Stock Identification

Early Summers are still migrating through the marine area, these are mostly Early Thompson sockeye. Early stuarths have dropped out of the DNA identification. Summers are now the majority of the DNA samples throughout the test fishery samples, driven primarily by Chilko and Quesnel. Late run have started to show up in the Area 12 and Area 20 in greater abundance, almost exclusively Late Shuswap/Portage.

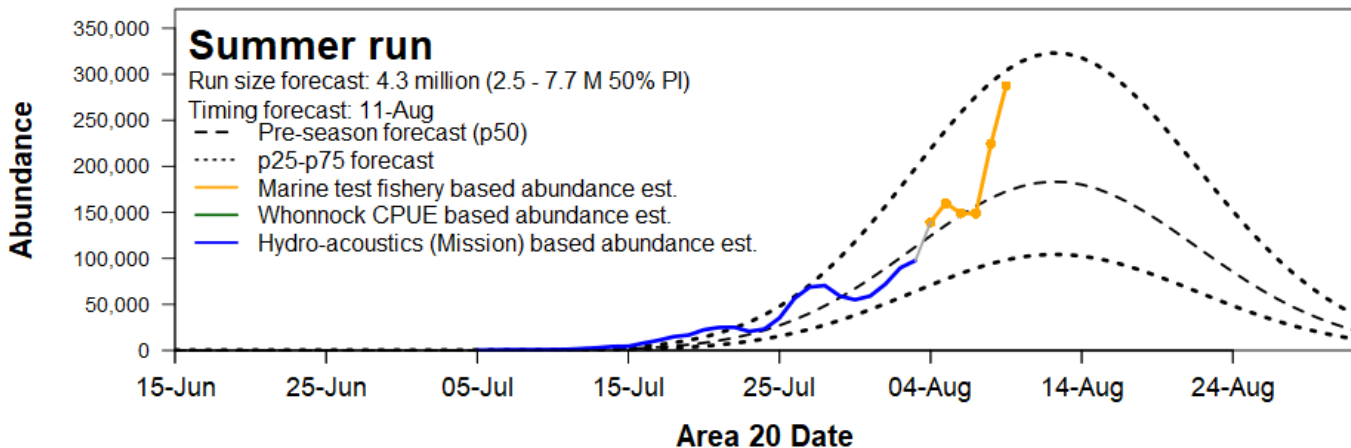
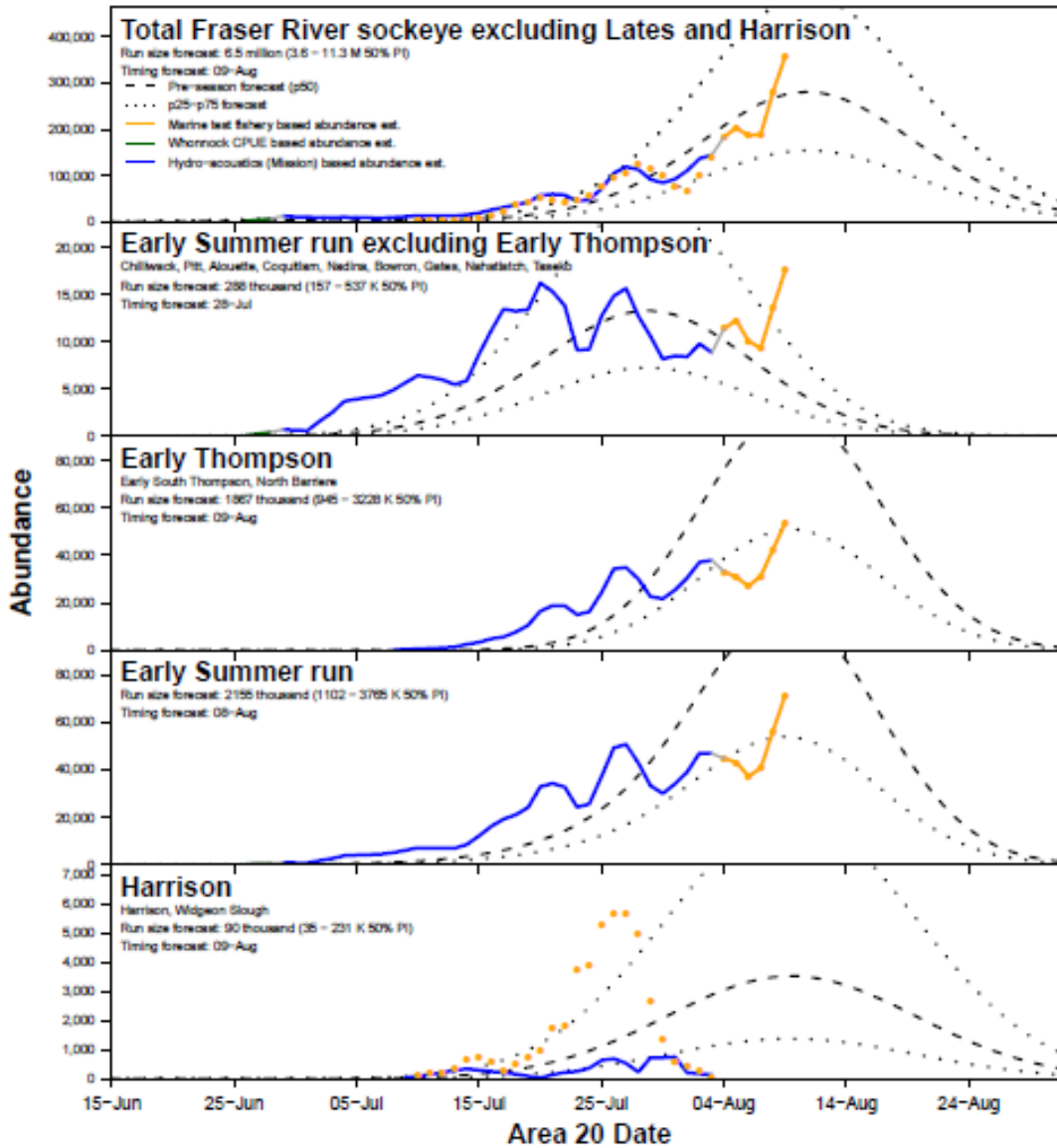
Test Fisheries

The lull experienced last week seems to have passed, although catchability issues persist for some of the gillnet test fisheries due to a large algal bloom.

A total of 2,360,000 Fraser sockeye have been accounted-to-date. The run comprises of 123,200 Early Stuart sockeye, 818,000 Early Summer run sockeye, 1,144,400 Summer run sockeye, and 274,500 Late run sockeye. Fishery catch to date downstream of Mission has been 1,024,800 sockeye (1,800 Early Stuart, 264,500 Early Summer, 578,400 Summer, 274,500 Late).

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 10:30AM Tuesday August 14th.

Fraser River Panel Schedule:

~~July 6, 10, 13, 17, 20, 24, 27 (Tuesdays and Fridays) 11am~~

~~July 31 (Tuesday), August 7, 14, 21 (all Tuesdays) 10:30am~~

August 3, 10, 17, 24, 31 (all Fridays) 11 am

September 4, 7, 11, 14 (Tuesdays and Fridays) 11am (TBC)

Canada dial-in: 1-888-299-2873

(USA dial-in: 1-888-585-9008)

Conference ID: 902-802-337

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>

For more information contact Aidan Fisher and/or Pete Nicklin by email: pnicklin@telus.net, Aidan.Fisher@lffa.ca