WATERSHED TALK
NEWSLETTER
Produced by the Fraser River Aboriginal Fisheries Secretariat

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2018 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

Fraser sockeye fisheries are winding down in many areas. Earlier this week the Fraser Panel adopted an in-season run size of 6 million Lates, with a run timing of August 17th. This also changed the DBE from 0.43 to 0.25 for Late run. There has been a large commercial fishery ongoing this week in the Strait of Georgia (Area B and H) to attempt to catch some more of the remaining Canadian commercial TAC.

The final outstanding question for Fraser sockeye management is the amount of Late run holding in the Gulf. The gulf troll test fishery used to estimate the size of the holding Late run sockeye showed estimates closer to 5 million Late run over the past 3 days of test fishing. There have been some catch in the Gulf troll test fishery, but the signs are pointing towards a run-size closer to 5 million for the Late run. Due to the uncertainty in the information, the Panel has decided to wait until next week to determine a change in in-season run size for Late run sockeye. No Panel water fisheries were put forward by Canada or the US.

In-river test fisheries have picked up in the past couple days, likely indicating the start of the river migration of Late run sockeye. Mission hydroacoustic data to date is trending close to the 2014 migration, which had a mid point migration date of September 19th. This could be indicative of similar run timing for Late run sockeye this year.

The most recent marine test fishery DNA sample has not picked up any Early Summers, and Summers have declined to only 14%, the remaining fish identified are Late run sockeye. This is indicative of the tail of migration through Johnstone Strait. It is likely that effectively all of the 2018 Fraser sockeye migration is either in the river or holding off the mouth of the Fraser. It is very unlikely for a substantial amount of fish seaward of Johnstone Strait and Juan de Fuca.

In-river DNA samples are still picking up a few Early Thompson, and a decent amount of Summers. The majority of the migration in the Lower Fraser are Late run. Environmental data are looking good for upstream migration, specifically in-river temperatures are in the range known to be beneficial to salmon migration.

PSC staff produced and presented estimation methodologies for Late run run-size estimation. The estimates use 2 methods: one uses August and September test fishery data for dominant/subdominant runs and the other uses September test fishery data from all years. Both estimation methods produce run-sizes near 5 million Late run, with an median run timing date of September 19th. The panel decided to hold off on further changes to the in-season run sizes adopted on Tuesday.

Canadian catch in commercial fisheries is 2,928,800, predominantly in the Area B purse seine (1,664,300) and gillnet fisheries (in-river Area E: 601,800, marine Area D: 473,300). The commercial troll fishery has also been ongoing, total catch of 189,400

For First Nations, FSC fisheries have been ongoing throughout the marine approach and in-river (824,120), and EO fisheries (266,700) have been occurring. Recreational fisheries in the marine approach and in-river are ongoing with an estimated catch of 67,200.

US catch in commercial fisheries of Fraser sockeye (All citizens and Treaty Indian) is 989,400. There is likely no more Fraser Panel approved fisheries for the US, they do have some small ongoing fisheries in non-Panel approved areas.

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~~	**1,800,000**	*0.23*	**August 6**
Summer	~~4,344,000~~	**4,344,000**	*0.10*	**August 11**
Lates	~~7,398,000~~	**6,000,000**	**0.25**	**August 16**
TOTAL	13,981,000	**12,269,000**		**Preseason (Aug 14)**

Early Stuarts

To date, 123,100 Early Stuart sockeye have been accounted for in catch and escapement. This is below the in-season adopted run size of 125,000. The Fraser River Panel has not adjusted the in-season run size for Early Stuarts.

Early Summers

Early Summers were forecasted at 2,155,000 (P50). To date the Mission hydroacoustic passage has accounted for 1,119,100 sockeye and a downstream catch of 639,900. The Fraser Panel has adopted an in-season run size of 1,800,000 and a median run-timing date of August 6th. The majority of Early Summers have migrated through the marine and Lower Fraser, the remaining Early Summers in the marine and Lower Fraser are Early Thompson.

Summer Run

Summers are forecasted at 4,344,000 (P50). To date the Mission hydroacoustic passage has accounted for 2,059,000 sockeye with a catch downstream of 1,997,800. The Fraser Panel adopted an in-season run size of 4,344,000 previously. The majority of the Summer run are Chilko and Quesnel.

Late Sockeye

Lates are forecasted at 7,398,000 (P50). To date the Mission hydroacoustic passage has accounted for 801,500 sockeye with a downstream catch of 2,006,000. The Fraser Panel adopted an in-season run size of 6 million sockeye, with an in-season run timing of August 19th. There was also a decrease in DBE from 0.43 to 0.25.

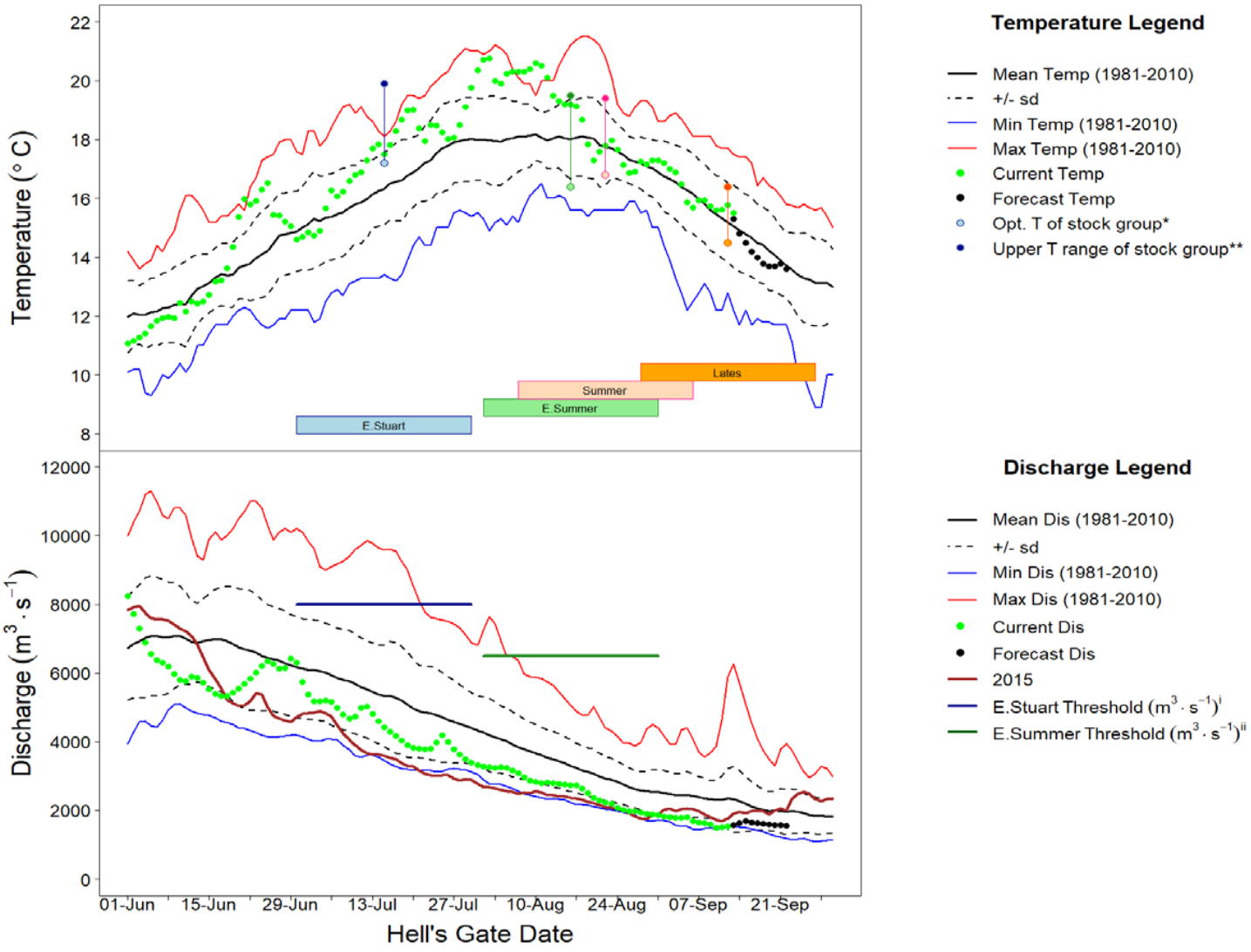
Fraser River Conditions

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 September 14th, 2018):



The Fraser River water temperature at Hope has decreased to 15.5 on September 13th nearly equivalent to the historical median (0.4 degrees Celsius below average for this time of year) and is forecast to decrease to 13.7 degrees Celsius by September 19th. The Fraser River discharge is very low at 1,579 m^3/sec at the Qualark water station on September 13th (32% below average for this time of year). The discharge is predicted to continue tracking well below average with a forecast discharge of 1,593 m^3/sec by September 19th.

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 19 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 (September 14th, 2018) and the Fraser River Panel meeting from the same day.

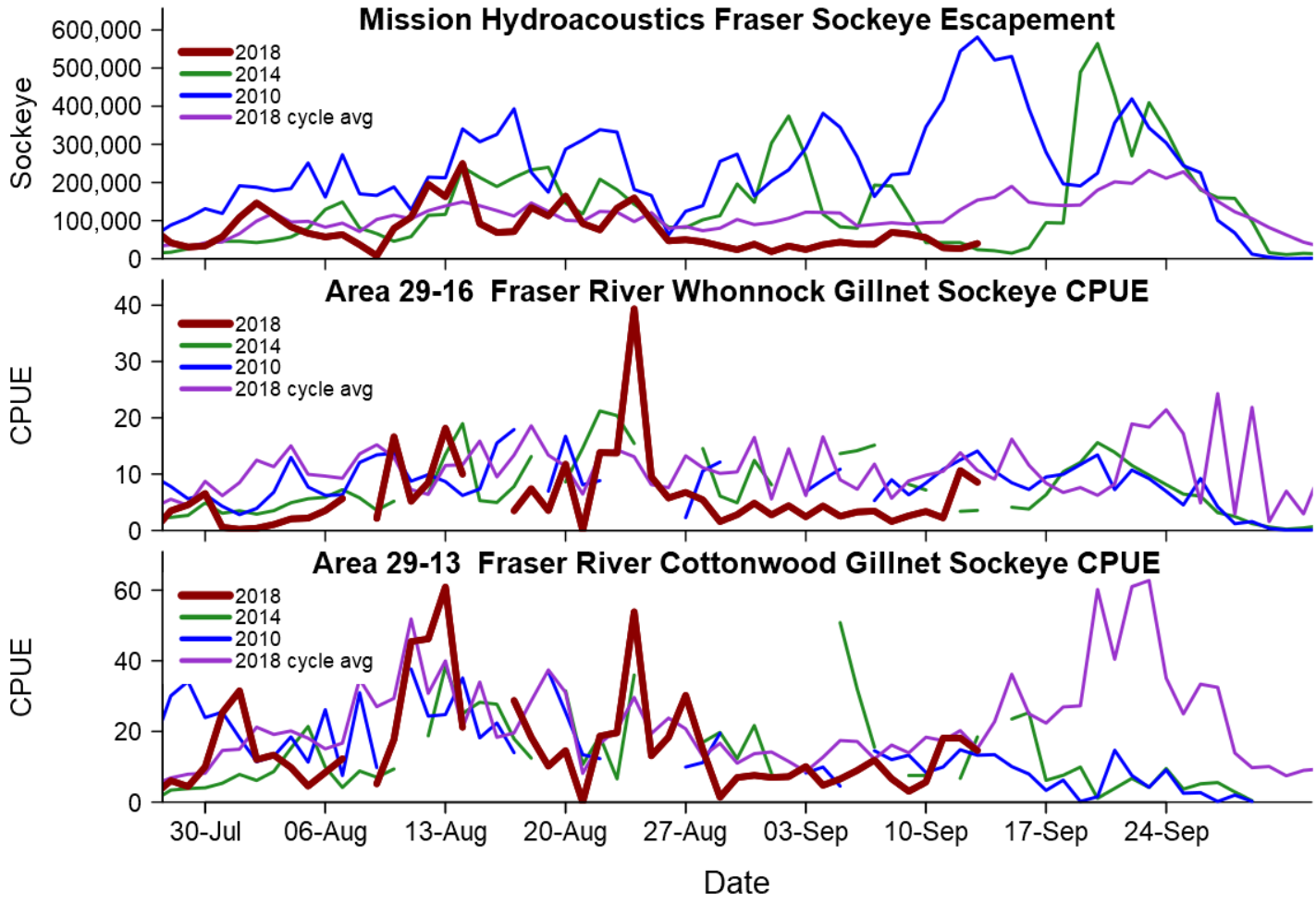
Stock Identification
Marine test fisheries have stopped in all areas but Area 12 and the gulf troll. Area 12 purse seine test fishery final date is today, with a few Chilko/Quesnel fish caught, but almost entirely Late run sockeye identified in the stock ID.

In-river test fisheries, Early Summers are still present but in one sample, but are not identified in the other 3 samples. Summers have dropped out quickly from the stock ID, between 6% and 28%. Late run sockeye are dominating the stock ID in all samples.

Test Fisheries
A total of 8,746,400 Fraser sockeye have been accounted-to-date. The run comprises of 123,100 Early Stuart sockeye, 1,759,000 Early Summer run sockeye, 4,056,800 Summer run sockeye, and 2,807,500 Late run sockeye. Fishery catch to date downstream of Mission is 4,645,400 sockeye (1,700 Early Stuart, 639,900 Early Summer, 1,997,800 Summer, 2,006,000 Late).

Test fishing graphs information from the PSC distribution package:

Estimated Abundance and In-Season Timing Compared to Forecast



The next Fraser River Panel meeting is scheduled for 1:00PM Monday September 17th.

Fraser River Panel Schedule:
~~**July 6, 10, 13, 17, 20, 24, 27 (Tuesdays and Fridays) 11am**~~
~~**July 31 (Tuesday),**~~ **August** ~~**7, 14, 21, 28**~~ **(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

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