



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

Volume XV, Issue 5

2018 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

There has been a recent and sudden drop in some marine test fisheries over the past 2 days. Gillnet and seine test fisheries have had a few days of stagnating or almost no catch. This is currently being discussed as a lull in test fishery catches in the marine approach. This is not a cause for concern yet, because the Summer and Late run stocks are forecasted in high abundance as well as a later run timing estimate (Aug 11 and Aug 17 median run timing date at Area 20). It is however important to the seaward abundance of Early Summer stocks, specifically the later migrating Early Thompson, which are forecasted to be nearly a million sockeye at p50. At the current test fishery catches, the early migrating Early Summer stocks are returning near p50, while the Early Thompson are not showing a similar trend.

Canada and the US have put forward commercial fisheries plans for next Monday and through next week. Canada has put forward a fishery plan in panel waters similar to the preseason plan. Area H will start August 6th one day early until further notice. This fishery is part of the Individual Transferable Quota fishery and will close once the allocation is reached. Area E will start August 8th for 24hrs starting 0700, the preseason plan was for a split opening on the 7th and 9th. The Area E proposal, is starting earlier, but in total there is less fishing time compared to the preseason plan. The US has put forward a fishery plan in Area 4B, 5, 6C to continue until August 8th, and Area 6, 7, 7A Monday and Tuesday. The All Citizens fishery will start Monday August 6th for gillnet and seine. The US reef net fishery is continuing. Canada voiced some concern regarding the US fishery changes, based on concerns regarding the catch composition, specifically Early Summers in the proposed US fisheries. Canada has agreed to the US fishery pending a check-in call on Monday August 6th, to discuss catches from panel fisheries over the weekend.

Area 4B, 5, 6C, and Area D gillnetters reported catches at around less than half of 2014 catch numbers to date. Catches in the marine fisheries can be an indicator of the performance of the test fishery program, in this case they seem to be reporting similar trends. Currently, this trend is being credited to the algae bloom in the area for the gillnetters.

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	Area 20 Timing (for 50% of run)
Early Stuart	84,000	135,000	July 5
Early Summer	2,155,000	N/A (too early for run size update)	Preseason (August 8)

Summer	4,344,000	N/A (too early for run size update)	Preseason (Aug 11)
Lates	7,398,000	N/A (too early for run size update)	Preseason (Aug 17)
TOTAL	13,981,000	N/A (too early for run size update)	Preseason (Aug 14)

Early Stuarts

The P50 pre-season forecast for Early Stuarts is 84,000. To date, the Mission hydroacoustic passage has accounted 122,300 sockeye. Based on the recent test fishery information the Panel is expecting less than 135,000 Early Stuarts, due to stock proportions in test fisheries to date. There was no change to the in-season run size of 135,000 as there are no management implications to slightly reducing the Early Stuart in-season run size, but this is likely to occur once there is no more sign of Early Stuarts in the DNA data.

Only other MU is the early timed early summers 328,000 July 22nd, based on the recent model runs.

Early Summers

Early Summers are forecasted at 2,155,000 (P50). To date the Mission hydroacoustic passage has accounted for 181,000 sockeye. PSC staff have presented an estimate of the early timed Early Summer stocks, or Early Summers without Early Thompson at minimum 319,000 if 11% of the fish are still seaward. Overall this portion of the Early Summer MU is the minority of the escapement in the MU.

Regarding Early Thompson, the lull in marine test fishery catch has seriously affected the estimate for the last few days. Early Thompson sockeye are not tracking below the p25 forecast return. It should be noted that there is still uncertainty on the causes of the test fishery catch drop, a true drop in fish abundance or a drop in catchability based on external factors. As we get closer to the median run timing date in Area 20 (August 9th) there will be much more certainty regarding the cause of the marine test fishery catch drop and the run size for Early Thompson.

Summer Run

Summers are forecasted at 4,344,000 (P50). To date the Mission hydroacoustic passage has accounted for 359,700 sockeye. It is still too early for an in-season run size estimate for this management group. The marine test fishery catch drop-off has also affected the marine estimate of run size as the Summer run MU is now tracking below p25. Hopefully, the lull in test fishery catch will disappear over the weekend as environmental conditions change. Of the two dominant stocks, the Chilko estimate is being hit hardest and is tracking below p25 now. Quesnel has been reduced but still tracking near p50. There will be more certainty on the test fishery estimates on the Fraser Panel Call next Tuesday.

Late Sockeye

Lates are forecasted at 7,398,000 (P50). To date the Mission hydroacoustic passage has accounted for 38,400 sockeye. It is still too early for an in-season run size estimate for this management group. Lates have shown up in marine test fisheries in Area 12 and Area 20 and a few in the river. Stock proportions are showing Late run sockeye are holding off the Mouth of the Fraser as usual. This is a good sign for Late run sockeye as early river entry can seriously affect survival during riverine migration.

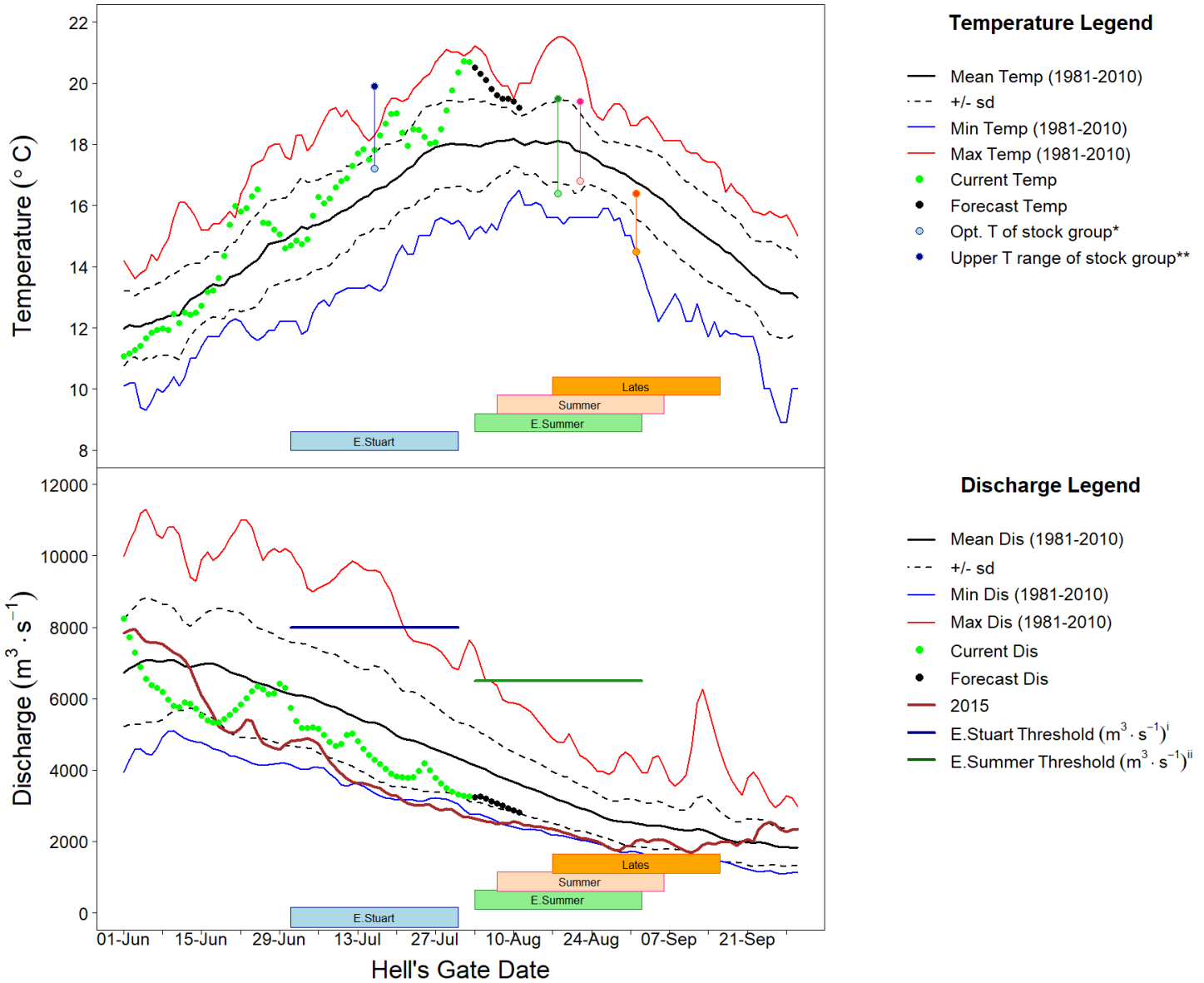
Fraser River Conditions

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 3rd, 2018):



The forecast is expected to increase temperatures throughout the Fraser watershed, which can quickly increase the river temperature. This could lead to poor migration conditions for further migrating Fraser sockeye stocks, affecting the pMA. There has been discussion at the Fraser Panel regarding the potential for high temperatures to increase the pMA, specifically for Late run sockeye.

The Fraser River water temperature at Hope is currently 20.7 degrees Celsius on August 2nd (2.7 degrees Celsius above average for this time of year) and is forecast to decrease to 19.5 degrees Celsius by August 8th. The Fraser River discharge is within the usual annual differences at 3,252 m^3/sec at the Qualark water station on August 2nd (22% 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 3,001 m^3/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 14 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 (July 20th, 2018) and the Fraser River Panel meeting from the same day.

Fish passage past Hell's Gate is higher than expected for this time of year. There have been some daily estimates of migration of as many as 43,000. PSC staff have reviewed the historic data and there are other years that show similar passage, although this is noted as particularly early migration past Hell's Gate.

Diversion Rate

Diversion rate through Johnstone Strait of 42% has increased since last week, back to amounts similar to the pre-season expectation.

Stock Identification

Early Summers are still migrating through the marine area. Early stuarths are still being identified in the DNA samples. Due to the lull in test fishery catch the dominant Summer aggregate stocks are also not showing forecasted abundance in the test fisheries, specifically Chilko and Quesnel.

Test Fisheries

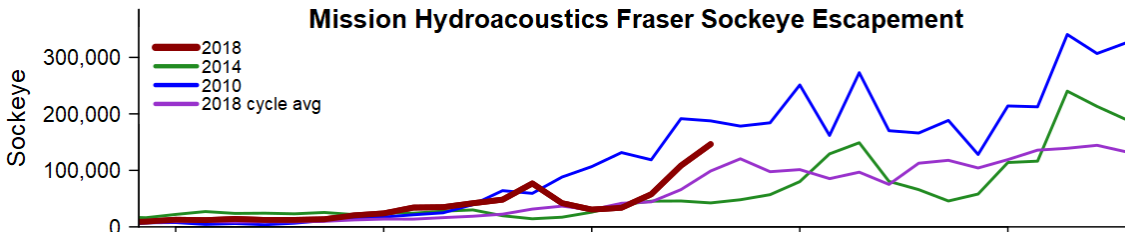
Overall there has been decreasing abundances in all stock groups due to reduced marine test fishery catch. This is being credited to a lull in migration, and a large algae bloom that is affecting gillnet catchability. In addition, the in-river test fisheries have had some variability in catches. This is likely due to the timing of the test fisheries as they occur on the slack tide and as they switch from the evening to the morning it can affect catchability. The lull in test fishery catch has not affected mission escapement estimates to date.

A total of 991,000 Fraser sockeye have been accounted-to-date. Past Mission the run comprises of 122,300 Early Stuart sockeye, 1,433,700 Early Summer run sockeye, 321,000 Summer run sockeye, and 25,600 Late run sockeye. Fishery catch from test fisheries and FSC fisheries to date has been 89,500 sockeye (1,100 Early Stuart, 36,900 Early Summer, 38,700 Summer, 12,800 Late).

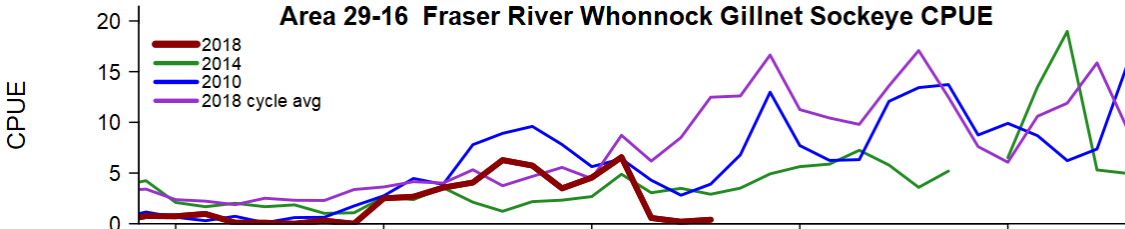
Test fishing graphs and Mission hydro-acoustics information from the PSC distribution package:

Estimated Abundance and In-Season Timing Compared to Forecast

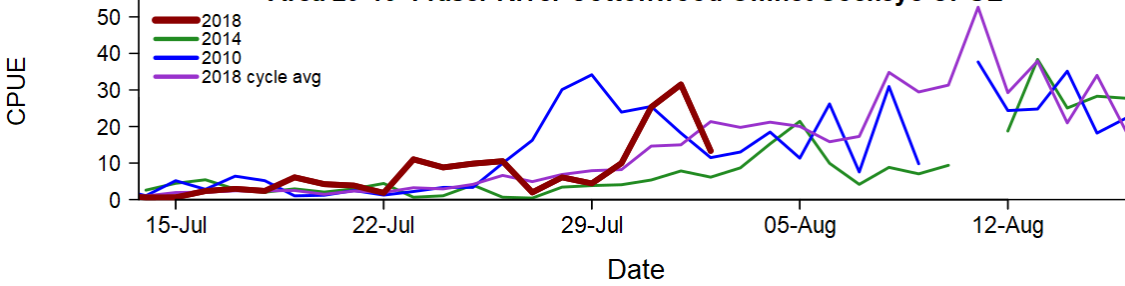
Mission Hydroacoustics Fraser Sockeye Escapement



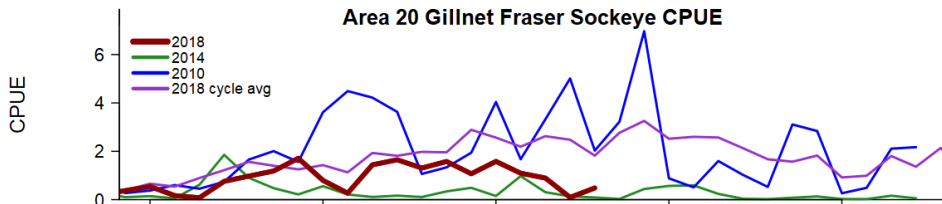
Area 29-16 Fraser River Whonnock Gillnet Sockeye CPUE



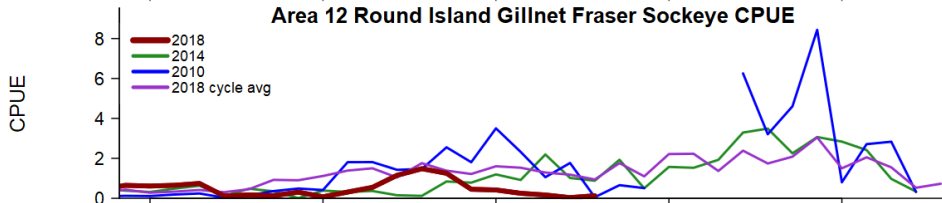
Area 29-13 Fraser River Cottonwood Gillnet Sockeye CPUE



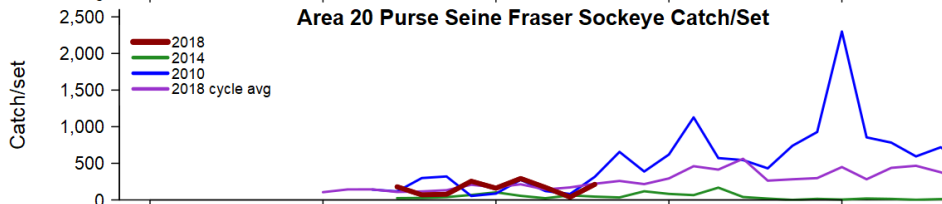
Area 20 Gillnet Fraser Sockeye CPUE



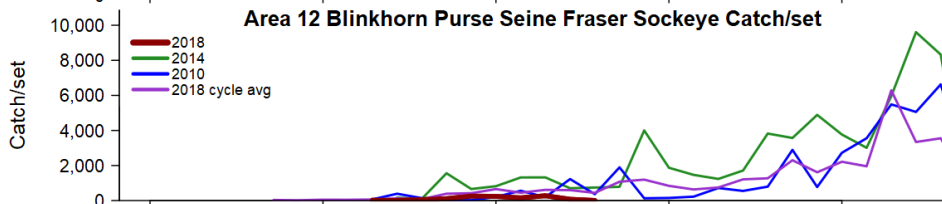
Area 12 Round Island Gillnet Fraser Sockeye CPUE



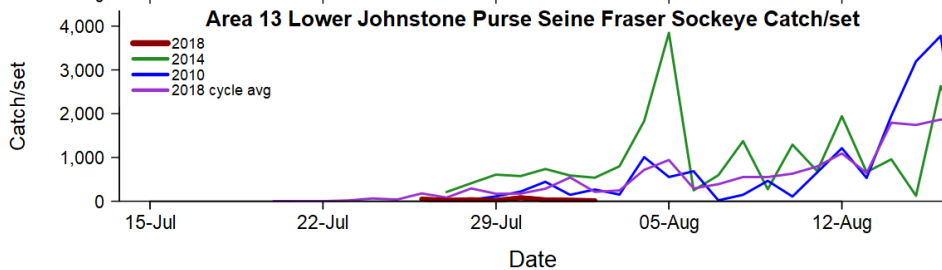
Area 20 Purse Seine Fraser Sockeye Catch/set

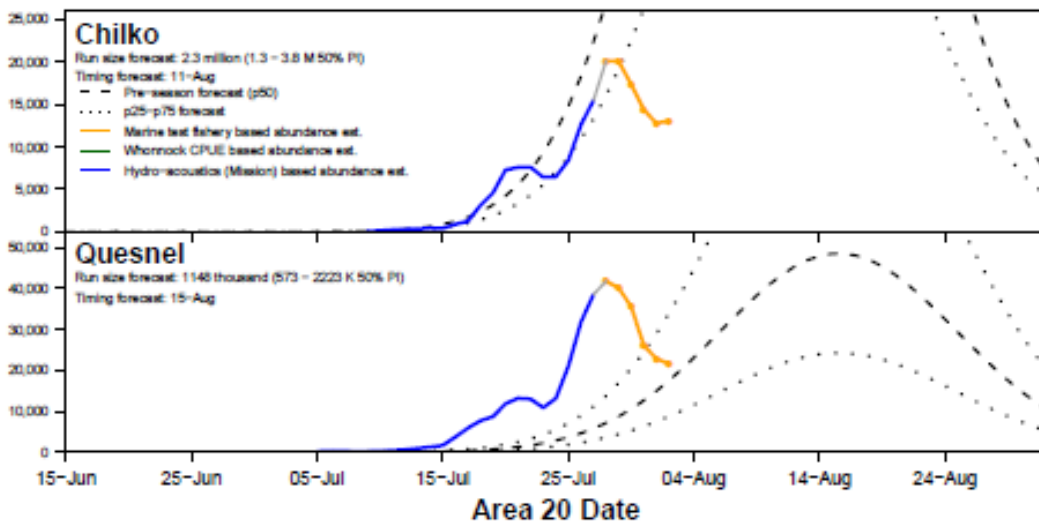
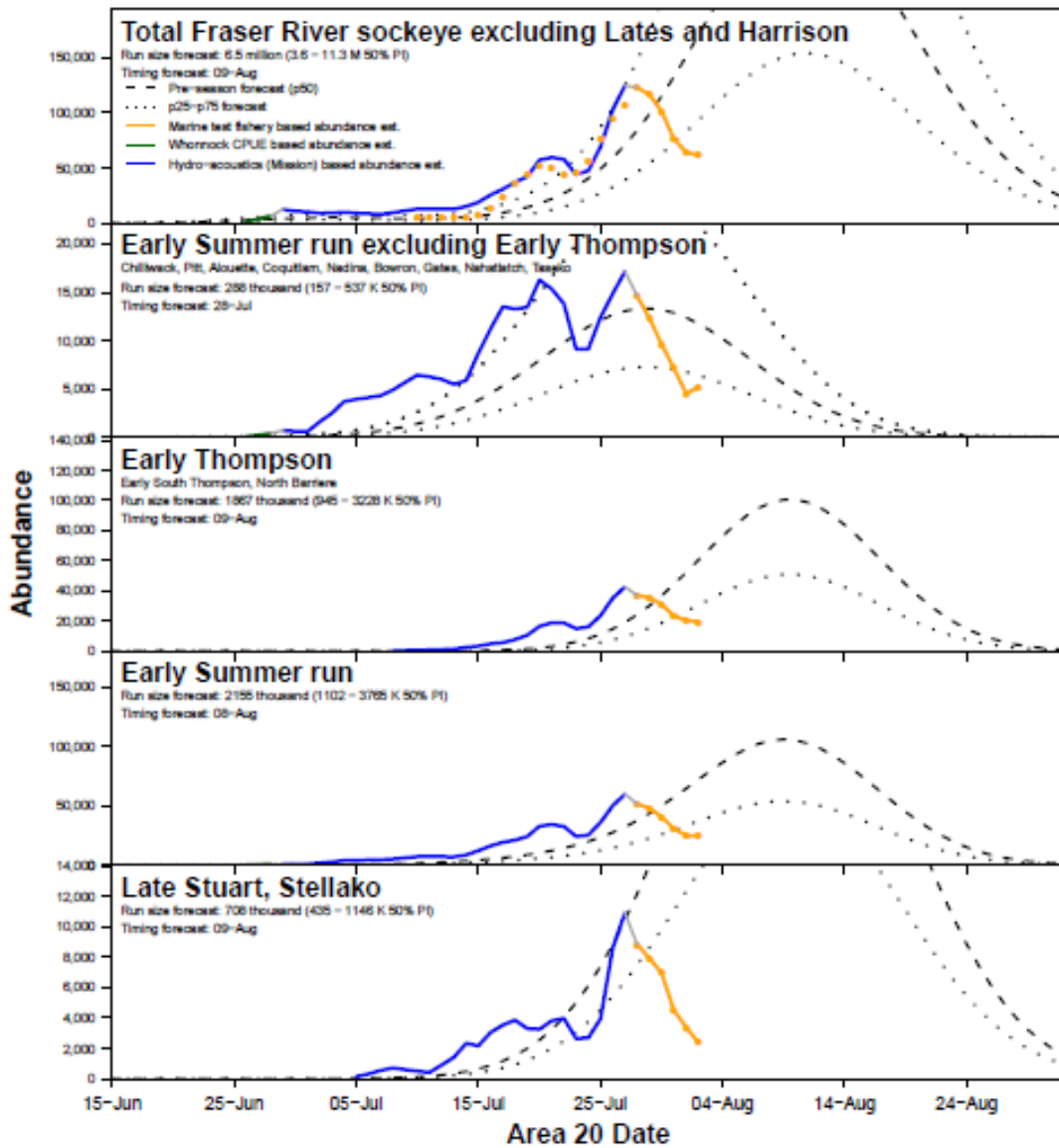


Area 12 Blinkhorn Purse Seine Fraser Sockeye Catch/set



Area 13 Lower Johnstone Purse Seine Fraser Sockeye Catch/set





The next Fraser River Panel meeting is scheduled for 10:30AM Tuesday August 7th.

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://bcrcfc.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