



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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2020 FRASER SOCKEYE UPDATE

By: Aidan Fisher, FSMC Biologist

To date no substantial abundance of Fraser sockeye has been identified that would allow for directed fisheries for FSC. The current projections are an in-season run size below the p50 forecast. If this is the case for 2020, then there will be limited sockeye impacts allowable by Approach and Fraser First Nations. Impacts on Fraser sockeye will be limited to the Low Abundance Exploitation Rate of 10% for all Management Units (MU) except 20% for Late run sockeye. The LAER encompasses all mortality by fishing on Fraser sockeye inclusive of test fishing impacts.

PSC staff do not expect to see the p50 forecast for Early Summers. PSC staff did provide an estimate for the p25 forecast for Early summers with a median run timing of July 30. PSC staff also provided an updated estimate to the Summer run size based on a SMURF estimate (Smolt Method of Updating Run Forecasts), which uses smolt outmigration ratios compared to in-season run sizes of earlier runs observed to date to predict late run sizes. The estimate is 444,000 based on the p50 forecast for Harrison and SMURF estimates for the remaining Summer run stocks. PSC staff recommended changing the Early Summer run to the p25 forecast of 116,000 and a median run timing of July 30th. The Fraser Panel did not agree to adopting the p25 for the Early Summer run size and run timing date. Instead the Panel wanted to communicate we are tracking at p25, and will wait to make an official run size change. The Panel has decided to extend the purse seine test fisheries a day, and revisit the catches on next Tuesday's meeting.

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	218,000	48,800 (1,100:47,700)	N/A (too early for run size update)	Preseason (July 24)
Summer	611,000	38,800 (2,000:36,800)	N/A (too early for run size update)	Preseason (July 31)
Lates	99,000	400 (100:300)	N/A (too early for run size update)	Preseason (Aug 6)

TOTAL	941,000	101,400 (1,800:61,600)	N/A (too early for run size update)	Preseason (July 30)
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Big Bar Slide

The Whoosh fish passage equipment is operational, with 6 tubes to transport Fraser salmon over the Big Bar slide. Seining has started with 31 sockeye radio tagged. 6,672 salmon have been identified downstream of Big Bar. The Whoosh system has transported 921 salmon to date. Most of the fish transported are chinook, but more sockeye will be showing up at Big Bar over the next few weeks. There was an issue with the Whoosh system rejecting fish, but it appears to have been resolved.

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](#)).

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, and we have seen effectively the entire Early Stuart run with trace samples still detected in river. 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.

Early Summers

Early Summers are forecasted at 218,000 (P50). To date we have observed 48,800 Early Summer sockeye, and there is little chance that we will be seeing substantially more abundance. The Early Summer run will likely be below the p50 forecast, and also managed under the LAER of 10% of the in-season run size.

Summer Run

Summers are forecasted at 611,000 (P50). Stock proportions in marine and in-river test fisheries for Summer run sockeye are growing. The Summer run is tracking around the p25 or below to date. It is still early to make a determination if the run is low or late.

To date we have observed 38,800 Summer run sockeye to date.

Late Sockeye

Lates are forecasted at 99,000 (P50). It is still too early for an in-season run size estimate for this management group. We have observed some stock ID samples of Late run sockeye, but in very small proportions.

Sockeye Closures

Area	Start Date	3-Week End Date	4-Week End Date	Management Actions ³
Areas 111, 121, 123 to 127	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Sn, Gn, Tr).
Area 11	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Gn, Tr), July 25 (Sn) ^{1,2} .
Area 12	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Gn, Tr), July 25 (Sn) ^{1,2} .
Area 13	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Gn, Tr), July 25 (Sn) ¹ .
Areas 14 to 16	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Gn, Tr), August 15 (Sn) ¹ .
Areas 17, 19, 20 and 21	19-Jun	15-Jul	22-Jul	No Fraser sockeye directed fisheries before July 15 (Sn, Gn, Tr).
Areas 18 and 29	27-Jun	20-Jul	27-Jul	No Fraser sockeye directed fisheries before July 20.
Steveston-Mission Bridge	27-Jun	20-Jul	27-Jul	No Fraser sockeye directed fisheries before July 22.
Mission Bridge-Sawmill Cr	29-Jun	22-Jul	29-Jul	No Fraser sockeye directed fisheries before July 24.
Sawmill Cr-Texas Cr	2-Jul	24-Jul	31-Jul	No Fraser sockeye directed fisheries before July 24.
Texas Cr-Kelly Cr	2-Jul	24-Jul	31-Jul	
Kelly Cr-Deadman	2-Jul	24-Jul	31-Jul	
Deadman-Chilcotin	6-Jul	28-Jul	4-Aug	No Fraser sockeye directed fisheries before July 28.
Chilcotin-Quesnel	6-Jul	28-Jul	4-Aug	
Quesnel-Hixon	6-Jul	28-Jul	4-Aug	
Hixon-Prince George	11-Jul	2-Aug	9-Aug	No Fraser sockeye directed fisheries before August 4 except for potential First Nations FSC allowable harvest in terminal areas.
Prince George-Stuart R	13-Jul	4-Aug	11-Aug	

The Early Stuart window closure is coming off for much of the Lower Fraser, and rolling up the river. There is not sufficient abundance to date to implement sockeye directed fisheries regardless of the Early Stuart Window Closure.

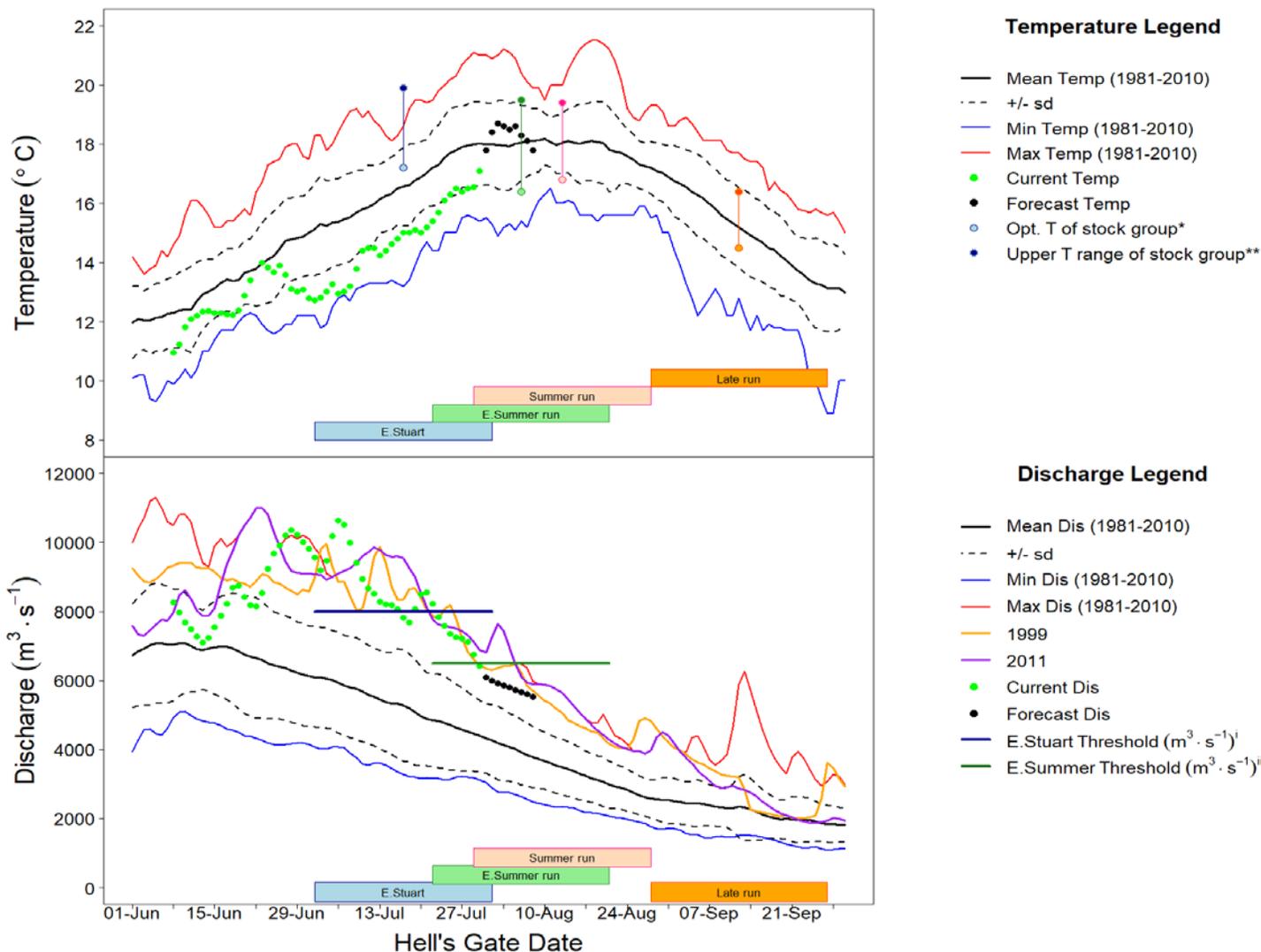
Fraser River Conditions

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 July 31st, 2020):



Temperature has jumped closer to the historical median for the Fraser, and is forecasted to remain near the median. Tributary temperatures are still below the historical median and may be able to moderate the temperature jump observed in the Fraser over the next week. 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 (July 31st, 2020) and the Fraser River Panel meeting from the same day.

Diversion rate through Johnstone Strait has increased again, tracking near the forecast at 31% the past 5 days.

Stock Identification

Area 12 is mostly Summer with some Early Summer and trace amounts of Late, few Harrison fish have been identified in the samples. Area 20 is mostly Summer with a large proportion of Harrison in the stock ID, the remainder is Early Summer and a trace amount of Late. More Age 5 fish have been observed in the test fisheries samples than in previous weeks.

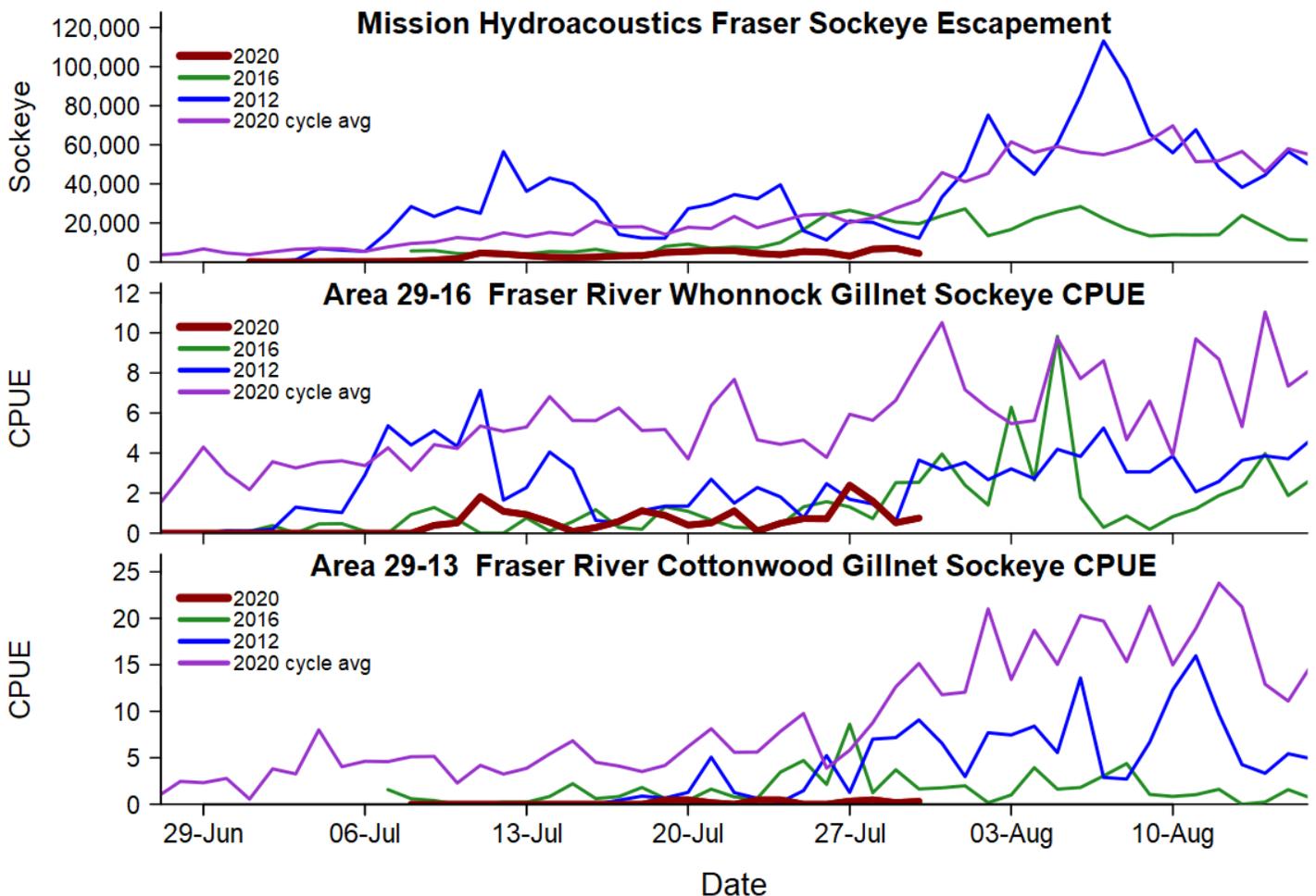
Test Fisheries

Area 12 gillnet was low before the program was ended on July 29. Area 12 purse seine has started marine tagging to track sockeye that will be passing Big Bar. Area 20 gillnet was low and consistent before it was ended on the 31st. More catch is being observed in Area 20 ps. Lower Fraser gn test fisheries are low but consistent, Qualark is catching more consistently. Mission is tracking very low compared to the cycle line.

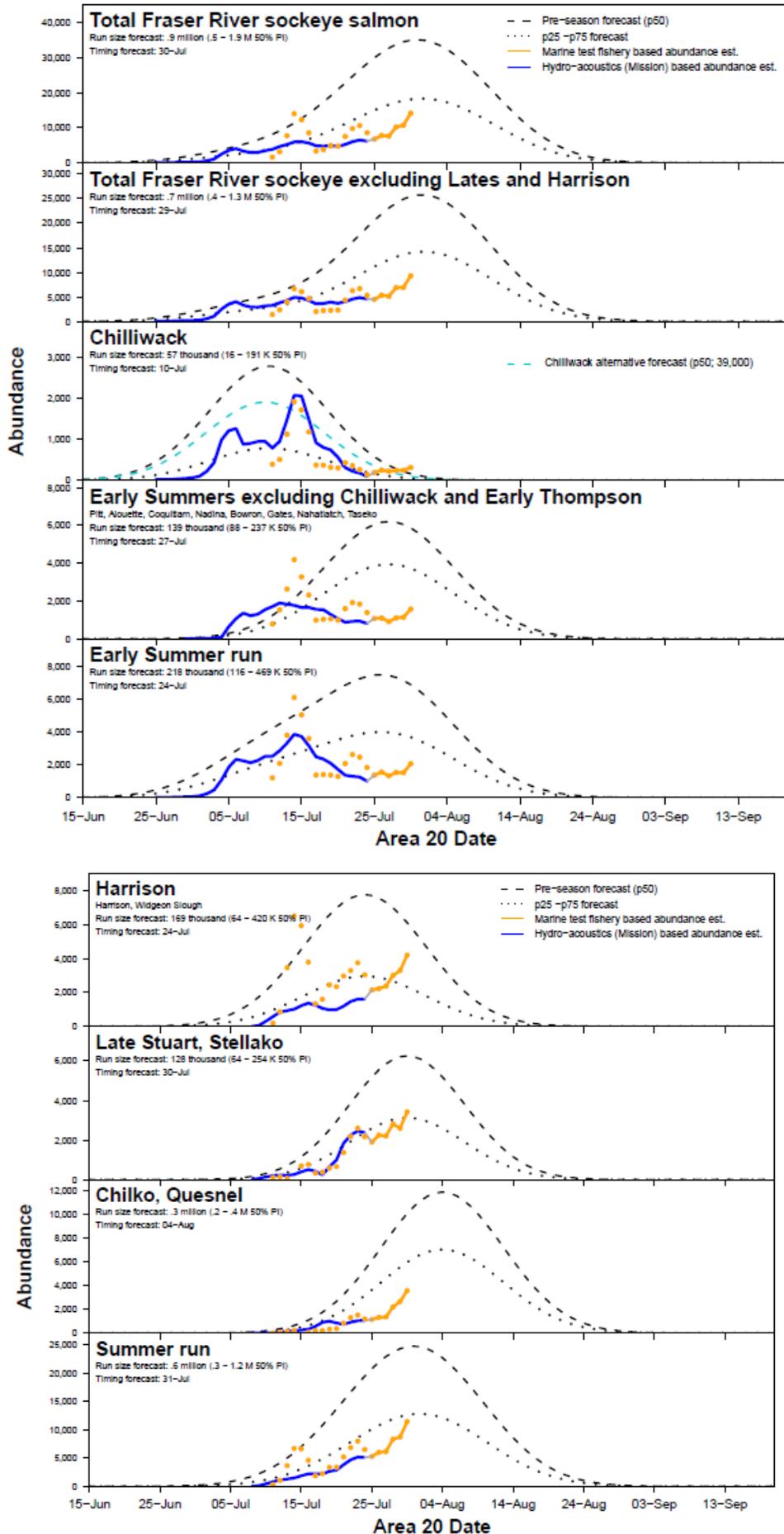
Hydroacoustics

Mission and Qualark hydroacoustic estimates are not lining up as they have typically, which is currently attributed to high discharge and how the two sites have been modified to account for high water. They may also be affected by travel time assumptions of sockeye between the two sites, high discharge may slow their migration speed. PSC staff have recommended waiting until next week to make a management adjustment if this remains to be an issue. Waiting until next week will provide more information on the scope of the issue.

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 August 2nd.

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://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>

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