



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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### 2019 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

The initial strong sign of Fraser pinks has not materialized to substantial abundance. New modelling methods shown by the PSC staff are indicating a run size much closer to the p50 forecast. US fisheries have been ongoing for their share of Fraser pinks, but no Canadian commercial fisheries have been implemented to date.

There has not been any further sign of any abundance of Fraser sockeye that could be returning late, the run sizes decided upon today are likely near final for all Management Units. There has been some identification of Early Stuart fish in their spawning grounds indicating that some of the helicoptered sockeye have made it up to their spawning grounds, or a few sockeye passed the slide naturally. Although the reported numbers of escaped sockeye are not high, at least there has been some identification of wild fish in their spawning grounds.

PSC staff put forward a recommendation for an in-season run size of 5 million pinks. There were also suggestions to finish some Johnstone Strait test fisheries, in order to save money as there is no more expected abundances of Fraser salmon (sockeye or pink) seaward of those test fisheries. There are still some more fish that will be migrating through these areas, but their abundances will likely not affect the in-season identified run sizes for sockeye or pink salmon.

The Fraser River Panel adopted the recommended in-season run size of 5 million pinks with a median run size of August 20<sup>th</sup>. No US or Canadian commercial fisheries were planned.

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

| Sockeye Management Group | Pre-Season Planning Forecast (P50) | Run Accounted to Date | In-Season Adopted Run Size | Area 20 Timing (for 50% of run) |
|--------------------------|------------------------------------|-----------------------|----------------------------|---------------------------------|
| Early Stuart             | 41,000                             | 25,900                | <b>27,000</b>              | <b>July 8</b>                   |
| Early Summer             | 465,000                            | 90,800                | <b>90,000</b>              | <b>July 26</b>                  |
| Summer                   | 3,393,000                          | 270,400               | <b>400,000</b>             | <b>August 17</b>                |
| Lates                    | 359,000                            | 10,300                | <b>40,000</b>              | <b>August 25</b>                |
| <b>TOTAL</b>             | <b>4,795,000</b>                   | <b>359,000</b>        | <b>557,000</b>             | Preseason (Aug 9)               |

|              | <b>Pre-Season<br/>Planning Forecast<br/>(p50)</b> | <b>Run Accounted to<br/>Date</b> | <b>In-Season<br/>Adopted Run Size</b> | <b>Catch to Date</b> | <b>Area 20 Timing<br/>(50% of return)</b> |
|--------------|---|----------------------------------|---------------------------------------|----------------------|---|
| Fraser Pinks | 5,018,600   | 709,400                          | <b>7,400,000</b>                      | 248,100              | <b>August 20</b>                          |

### Big Bar Slide

A second fishwheel has been assembled on site, and crews continue to work diligently to assist Fraser salmon with their passage over the big bar slide.

To date 49,500 chinook and sockeye have been transported over the slide site via helicopter. A few pink and coho salmon have also been air lifted to date.

### Sockeye Closures

The Early Stuart window closure is up for all areas of the Fraser River and the marine approach. However, to date no sockeye directed fisheries have yet been licenced due to extremely low abundances observed.

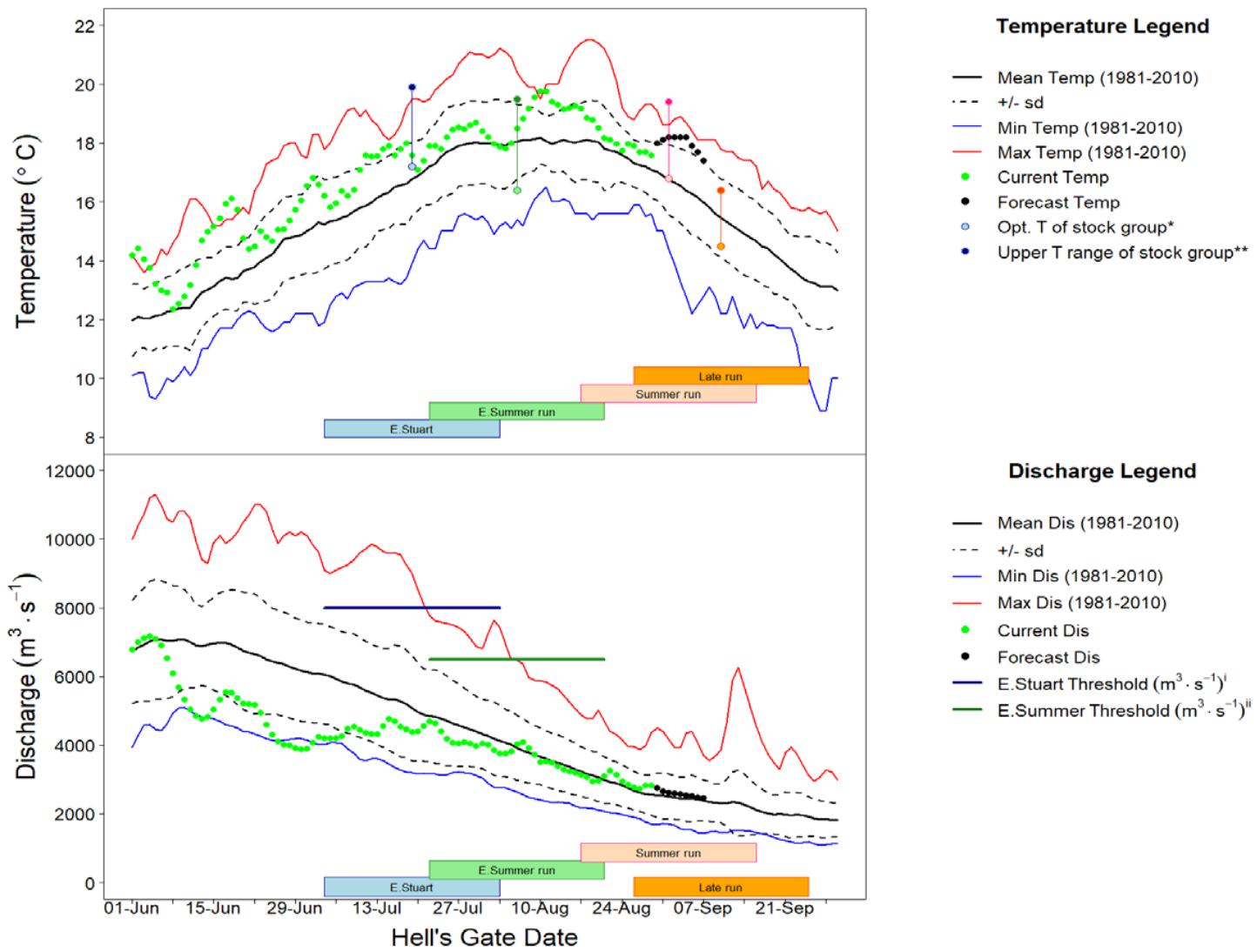
### Fraser River Conditions

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 29<sup>th</sup>, 2019):



The Fraser River water temperature at Hope is currently 17.6 degrees Celsius (0.5 degrees Celsius above average for this time of year), and is forecast to increase to 18.2 degrees Celsius by September 4<sup>th</sup>. The Fraser River discharge is within the usual annual differences at 2,829 m<sup>3</sup>/sec at the Qualark water station on August 29<sup>th</sup> (11% above average for this time of year). The discharge is continue to tracking at the average discharge, with a forecast discharge of 2,543 m<sup>3</sup>/sec by September 4<sup>th</sup>.

Environmental data and observations are critical in identifying Management Adjustments (MA) in-season. Currently, the flow and temperature data are sitting within the historic range for preseason MA forecasts, we are currently not expecting a major change in MAs compared to preseason forecasts. The Panel is unlikely to announce a major change in MAs for sockeye MUs based on environmental variables because we are now past the peak of river temperatures and moving into cooler weather. The Panel may still announce changes to the MA based on the Big Bar slide and its impact to Fraser sockeye migration.

## 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 30<sup>th</sup>, 2019) and the Fraser River Panel meeting from the same day.

### *Stock Identification*

Nearly all the sockeye caught in test fisheries is Summer run stocks, dominated by Chilko/Quesnel sockeye. There are trace identification of other stocks, but of the recent DNA analysis between 70% and 91% of the sockeye identified are Chilko/Quesnel. Some late run sockeye are being picked up, but not in substantial proportions.

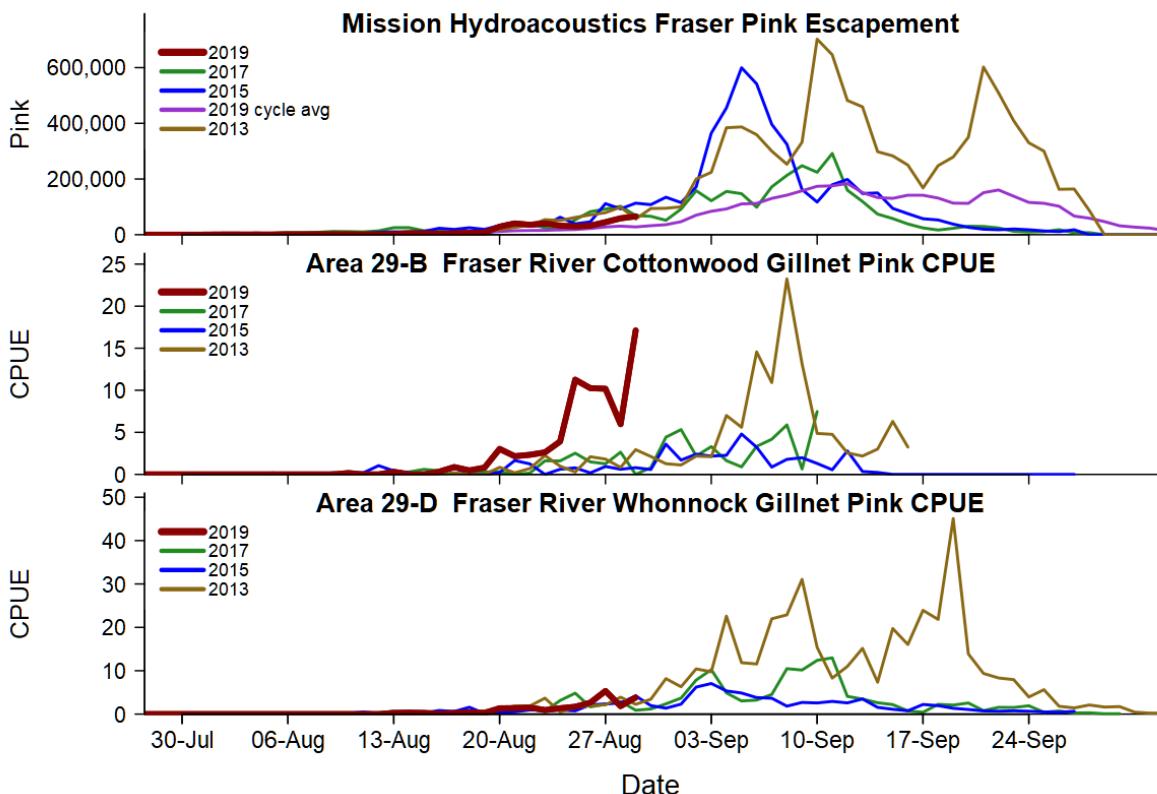
Fraser pink salmon are dominating marine test fisheries, recent samples are between 74% and 92% Fraser pinks.

### *Test Fisheries*

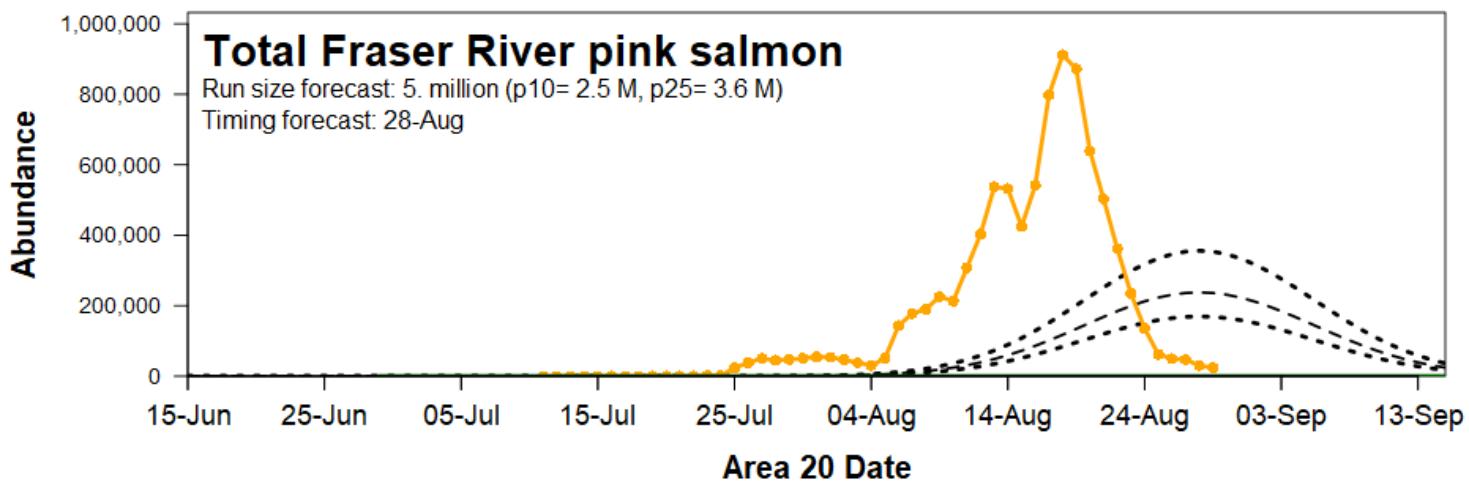
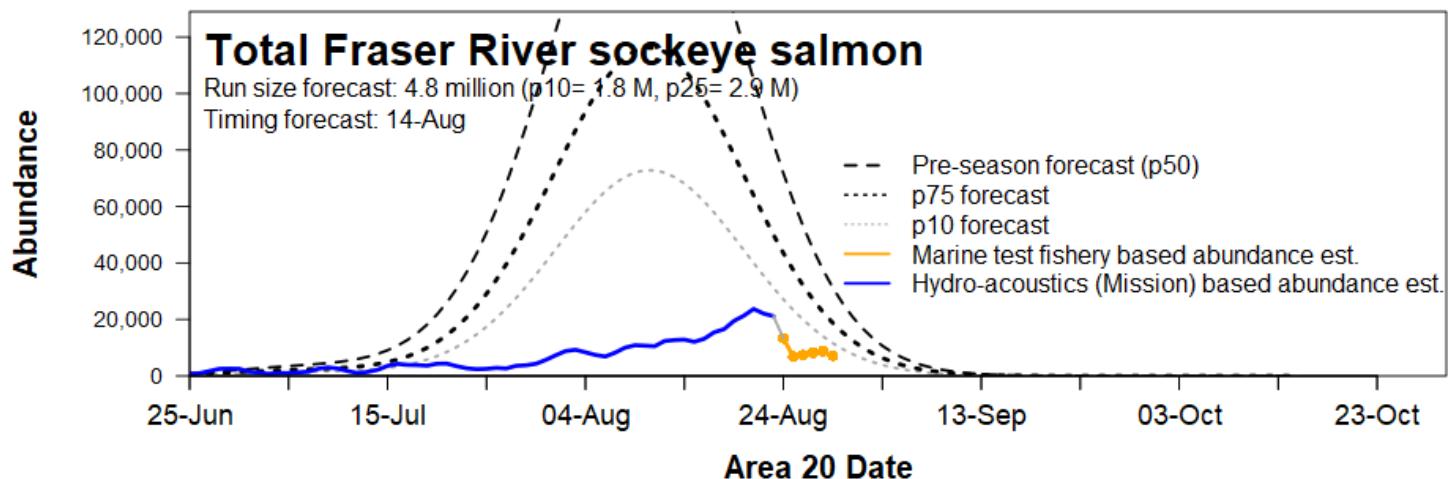
Marine test fishery abundances have decreased drastically over this week. There has not been further indication of continued sockeye or pink abundance in the marine approach. In-river test fisheries are catching more pinks to date, this is likely the start of their river migration. An early spike in Cottonwood catch is a strong second signal that the early Pink migration observed in marine test fisheries is being seen in-river.

Diversion rate for Pinks is now estimated closer to the preseason forecast. Fraser sockeye continue to show a high diversion rate, similar to the preseason forecast.

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 September 3<sup>rd</sup>.

Fraser River Panel Schedule:

**Tuesday and Friday 11am.**

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

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

**Conference ID: 287-053-397**

## Links

Big Bar Slide Updates are available: <https://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/emergency-response-and-recovery/incident-summaries/big-bar-landslide-incident>

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](http://www.wateroffice.ec.gc.ca/index_e.html)

Pacific Salmon Commission Website: [www.psc.org](http://www.psc.org)

Pacific Salmon Commission Test Fisheries: [http://www.psc.org/info\\_testfishing.htm](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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