



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

AUGUST 17, 2012

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### FRASER SALMON UPDATE

By Pete Nicklin, Fraser Fisheries Biologist, FRAFS

#### **General:**

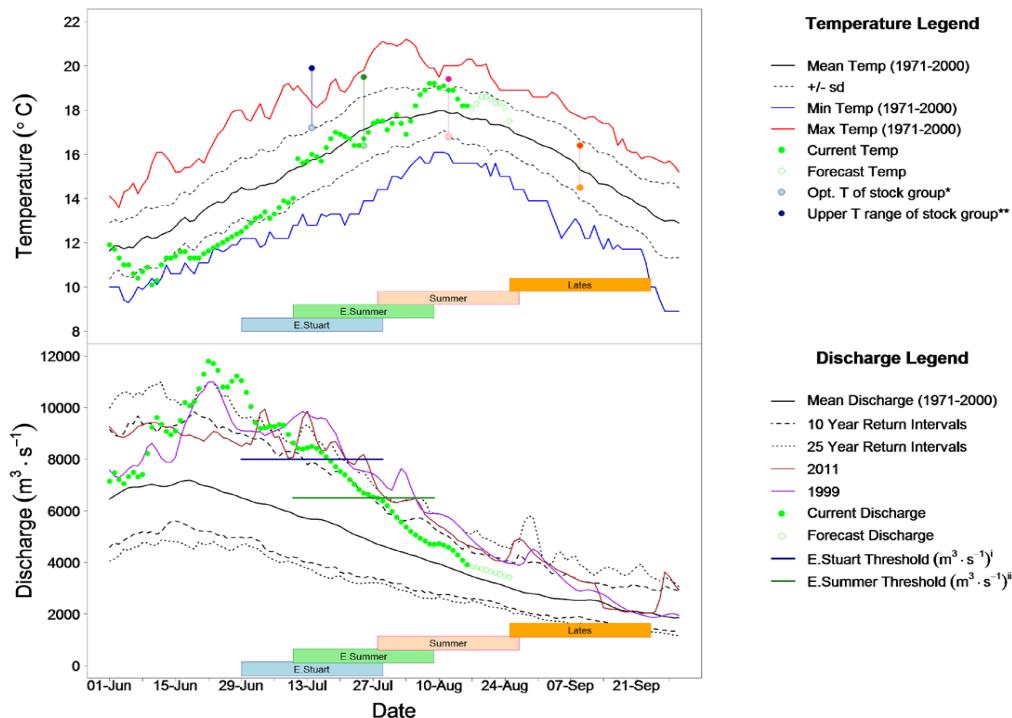
The information in this update summarizes the information from the FRAFS August 16<sup>th</sup> Thursday in-season teleconference call, the Fraser River Panel information distribution August 17<sup>th</sup>, and the DFO website.

#### **Water Conditions:**

Fraser River discharge and temperature information is updated and distributed by the Pacific Salmon Commission.

The graphs in this section are taken directly from that update.

Current Fraser River temperatures at Hope are slightly above average for this time of year, and forecast to rise over the next few days and then drop to near average. Water discharge in the Fraser is slightly higher than average for this time of year, but forecast to decrease and track slightly above average for the forecast period.



### FRASER RIVER ABORIGINAL FISHERIES SECRETARIAT

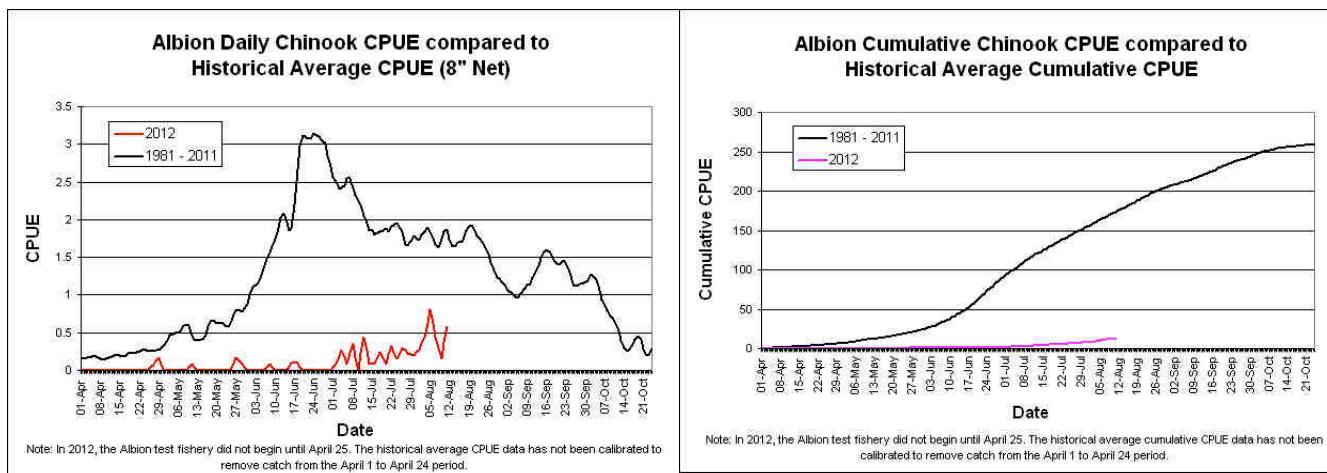
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**Figure 1:** The top graph shows the Fraser River temperatures at Qualark Creek (Lower Fraser). The line with the solid green circles shows the 2012 temperatures. The unfilled circle portion of the line shows the forecast temperatures. The current temperature is approximately 18.2 degrees Celsius and forecast to increase due to recent high temperatures in Kamloops and Prince George to 18.5 degrees Celsius before cooling towards the end of the forecast period. The current temperature is slightly above average for this time of year (0.6 degrees Celsius – solid black line is the average). The vertical lines connected by circles show the Optimal and Upper temperature range of the sockeye aggregates.

The bottom graph shows the 2012 Fraser River discharge at Hope. The line with the solid green circles is the 2012 discharge, and the forecast discharge shows as unfilled circles. Fraser River discharge is higher than average for this time of year but tracking near average. The August 16<sup>th</sup> discharge was approximately 3900 cms (approximately 11% higher than average for the date), and forecast to decrease to approximately 3650 cms by August 21<sup>st</sup>.

### Fraser Chinook Albion Test Fishery (Graphs from DFO website: Albion Chinook Test Fishery)



### Fraser Sockeye

Fraser sockeye are in marine approach areas, migrating in the Fraser River and showing on the spawning grounds.

Early Summers, Summers, Birkenhead and Late sockeye continue to show in test fisheries conducted to date. Marine purse seine test fisheries indicate a declining abundance of sockeye migration for the past few days. According to the most recent stock identification conducted in marine test fisheries, Summers (which now includes Raft, North Thompson and Harrison) comprise the largest proportion of sockeye migrating through these areas, followed by Lates, with a very small component of the tail of Early Summers.

An estimated 182,500 Early Stuarts, 496,000 Early Summers, 877,800 Summers and 167,000 Lates are estimated to have passed the Mission hydroacoustics station (August 16<sup>th</sup>). Early Summer Area 20 50% timing is estimated at July 15<sup>th</sup>, Summer timing is estimated at August 2<sup>nd</sup>, and Late timing is estimated at August 5<sup>th</sup>, six days earlier than pre-season expectations.

At the August 17<sup>th</sup> meeting the Fraser River Panel increased the in-season run size estimate for Early Stuarts from 180,000 to 185,000, which is greater than the P50 pre-season forecast of 99,000. The in-season estimate of 550,000 for Early Summers was unchanged at today's meeting. The in-season estimate for

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Summers of 1.3 Million (adopted August 14<sup>th</sup>) was also unchanged at today's FRP meeting.

The Fraser River Panel increased the Late run in-season run size estimate from 200,000 to 250,000 (exceeding the P50 forecast of 158,000) at today's meeting. Birkenhead sockeye are currently the largest component of the 2012 Late sockeye return (in-season estimate of 148,000), and stronger than pre-season forecast. Fisheries conducted to date are approaching the 20% Late Run Exploitation Rate ceiling associated with Late run abundances less than the P75 forecast abundance. This exploitation rate constraint is the management focus for Lower Fraser fisheries.

The Early Stuart sockeye migration into the Stuart system appears to be complete, and peak die-off is occurring in most tributaries. Sockeye were first observed in the terminal area

on July 30<sup>th</sup>, and have been observed in tributaries to Takla and Trembleur Lakes and Middle River.

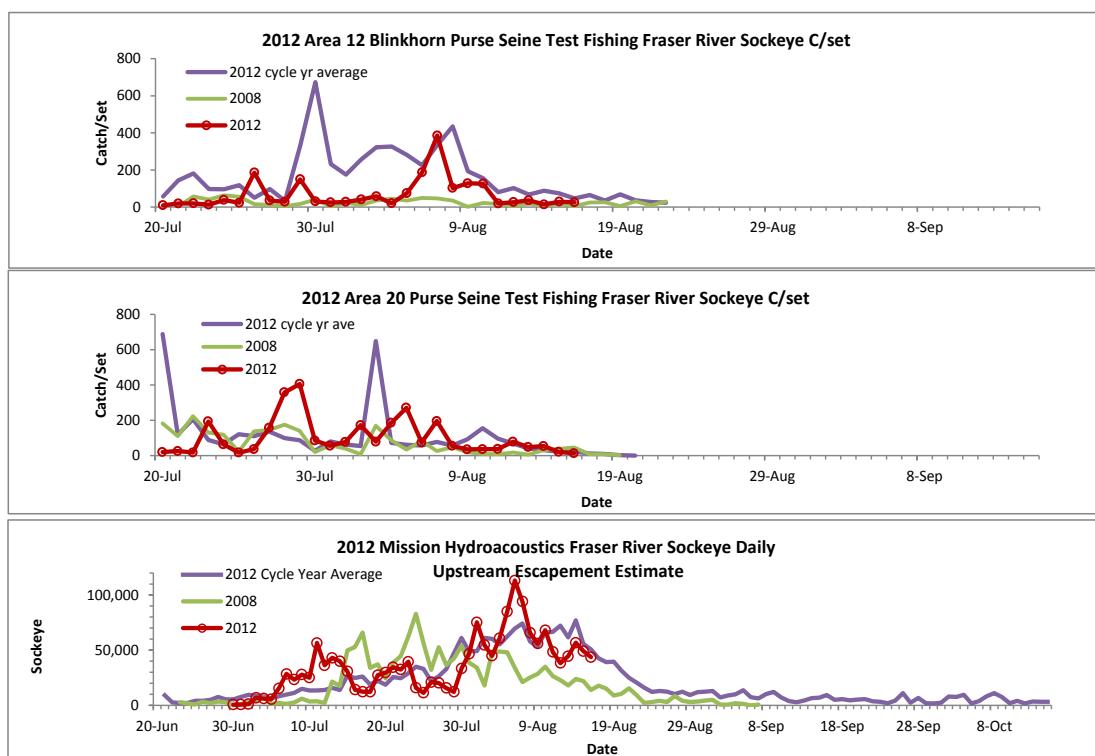
Early Summer sockeye have been observed in Gates Creek, Chilliwack River (nearing the peak of spawn) and through the Scotch Creek fence.

Summer sockeye: The Chilko River DIDSON system was operational on August 5<sup>th</sup>. As of August 14<sup>th</sup>, migration remained slow and 12 sockeye are estimated to have passed the enumeration site.

38 Cultus sockeye (part of the Late sockeye run) have migrated through the enumeration fence at Sweltzer Creek as of August 15<sup>th</sup>, and appear to be in good condition.

The next scheduled Fraser River Panel meeting is Tuesday August 21<sup>st</sup>.

### **Fraser Sockeye Test Fishery Summary (Provided by Pacific Salmon Commission)**

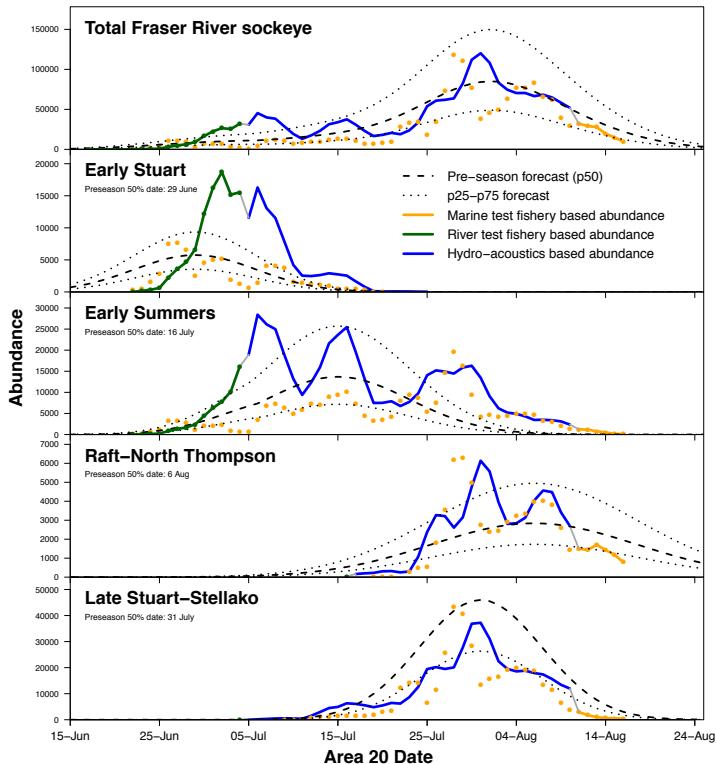


**Figure 2:** Pacific Salmon Commission 2011 test fisheries summary (August 17<sup>th</sup> distribution)<sup>1</sup>

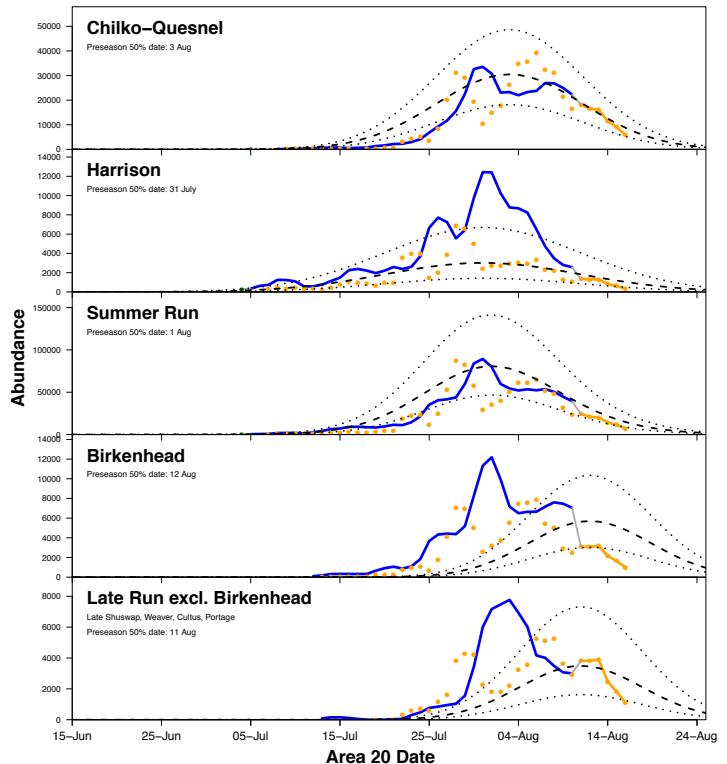


## Fraser Sockeye Area 20 timing passage and Johnstone Strait diversion rate graphs (Provided by Pacific Salmon Commission)

### 2012 Fraser River sockeye daily migration abundance

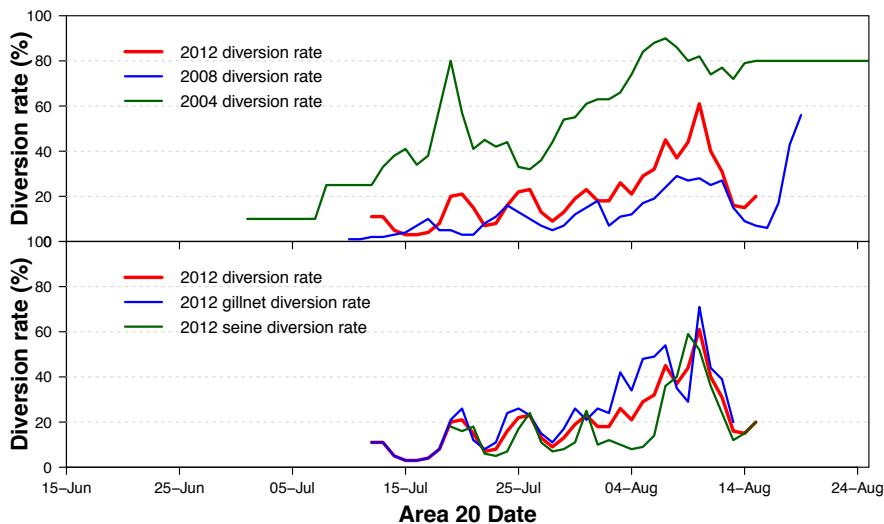


### 2012 Fraser River sockeye daily migration abundance



### 2012 Fraser River sockeye diversion rate (3 day averages)

Percentage of Fraser River sockeye migration through Johnstone Strait



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**Figure 3:** These graphs show the current (August 17<sup>th</sup>) information for the 2012 Early Stuart, Early Summer, Summer and Late Fraser sockeye migration and the Johnstone Strait sockeye diversion rate.

**For more information contact Pete Nicklin by email: [pnicklin@telus.net](mailto:pnicklin@telus.net)**

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## **FRAFS First Nations In-Season Technical Conference Calls**

**Thursdays at 4:00 PM unless otherwise noted**

Hosted by FRAFS Biologist Mike Staley

Dial in number: 1-866-512-0904; Passcode: 4954972#

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## **General Information**

**With Chinook and sockeye approaching and in the Fraser, these links may be of interest:**

Albion Test Fishery – Chinook Gill Net:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/docs/commercial/albionchinook-quinnat-eng.htm>

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

Fraser River Fisheries Information: <http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.htm>

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/news\\_frpnews.htm](http://www.psc.org/news_frpnews.htm)

Fraser River Mission Escapement Reports:

[http://www.psc.org/info\\_inseasonfraserescapement.htm](http://www.psc.org/info_inseasonfraserescapement.htm)

Fraser River Environmental Watch Reports:

<http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/reports-rapports/2012/reports-rapports-12-eng.htm>

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