



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

July 18, 2014

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### Early Stuart Run

Current thinking is that the Early Stuart run is five to six days late.

Approximately 162,000 Early Stuart sockeye have been accounted for to date. The in-season run-size estimate has been increased to 240,000. However, high Fraser River water temperatures are a major concern.

Even with the prospect of Early Stuart returns being as much as 240,000 fish, all of them need to be passed upstream in the hopes that the spawning escapement target of 108,000 might be reached.

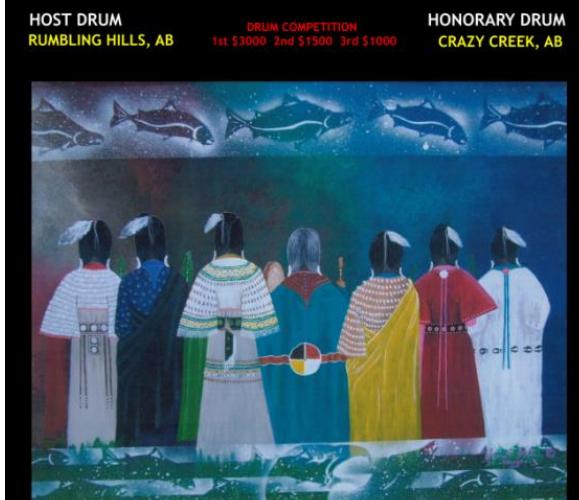
#### Fish Tech 101

**18°C**

When the river temperature reaches 18°C, migrating salmon are subject to increased stress levels which can reduce migration survival and spawning success.

In this current heat wave, the Fraser River temperature has risen to 18.8°C. This is almost 3 degrees above the historical average (for July 17<sup>th</sup>).

### Pow Wow at Squilax



Poster Design: Everette Whyte



## Fraser Salmon Update

*By Pete Nicklin, FRAFS Fraser Fisheries Biologist*

The Fraser sockeye and environmental update is a summary of information from the July 18<sup>th</sup> Fraser River Panel distribution, FRAFS in-season update call, and July 18<sup>th</sup> Fraser River Panel teleconference.

With respect to environmental conditions and in-season update for the Early Stuart sockeye, the picture is significantly different from last week – looking better, but not at pre-season forecast levels. In general, the Early Stuart in-season run-size estimate was increased to 240,000 (up from the earlier estimate of 189,000) with an estimated 50% Area 20 date of July 9<sup>th</sup> (5 days later than pre-season expectations). **Due to the high Management Adjustment (MA) resulting from high Fraser River temperatures, combined with an Early Stuart escapement goal of 108,000, there is still no TAC at this run size, and Early Stuarts are being managed under the Low Abundance Exploitation Rate (LAER) guidelines (10% including test fisheries).**

Fraser River water temperatures at Hope reached record levels this week, but these record temperatures were not present as long as forecasted a week ago. However, temperatures are still significantly higher than average for this time of year.

### *Fraser River Conditions*

The BC River Forecast Centre website (<http://bcrfc.env.gov.bc.ca>) has information and links related to discharge and temperatures at various monitoring stations throughout the Fraser watershed, including snow pillow and melt updates.

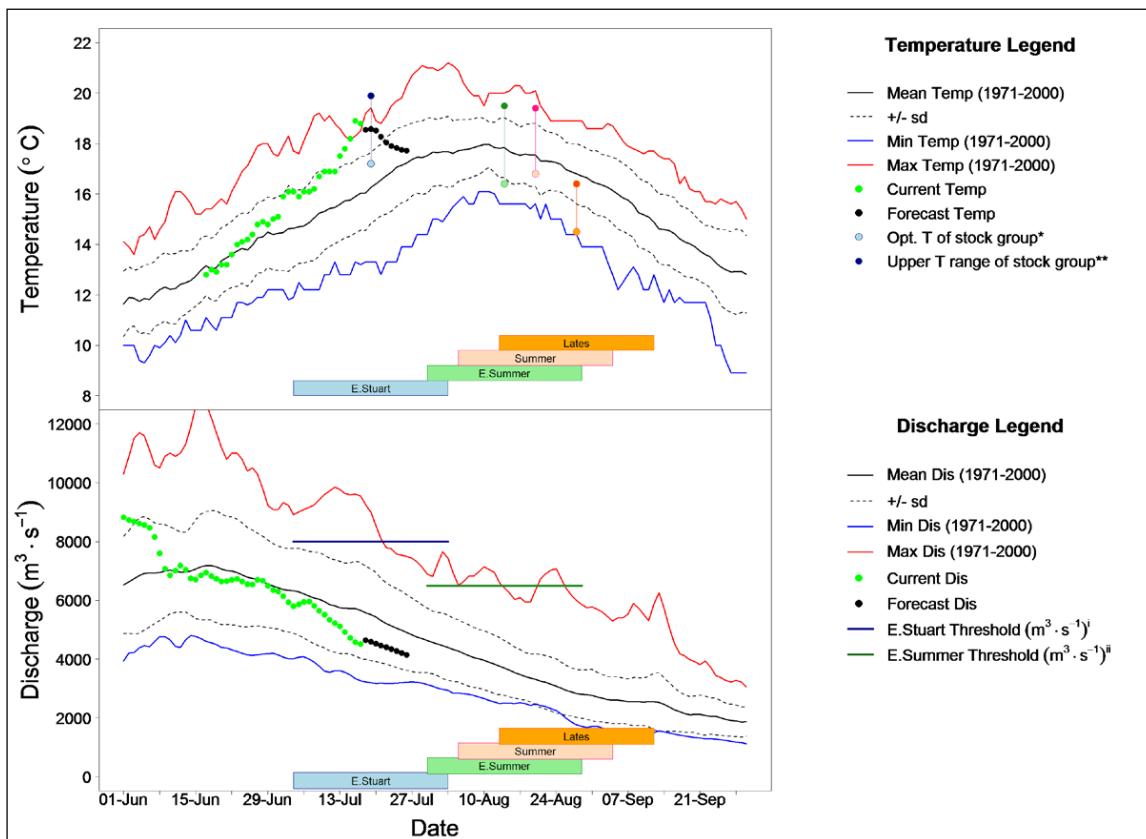
Environment Canada's Water Office webpage provides access to real time hydrometric data at many locations throughout the Fraser watershed ([http://www.wateroffice.ec.gc.ca/index\\_e.html](http://www.wateroffice.ec.gc.ca/index_e.html)).

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## Fraser Salmon Update

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution July 18<sup>th</sup>, 2014):



Fraser temperatures increased rapidly, but are now forecasted to decrease from a July 17<sup>th</sup> Qualark station water temperature of 18.8 degrees to 17.9 degrees July 23<sup>rd</sup>. In general, Fraser water temperatures of 18 degrees Celsius and warmer are considered stressful for sockeye salmon, and may affect upstream migration and spawning success. The Fraser discharge continues to decrease from its peak in late May, and is tracking lower than average. Current discharge (July 17<sup>th</sup>) is about 4,500  $m^3$ /sec and 20% below average.

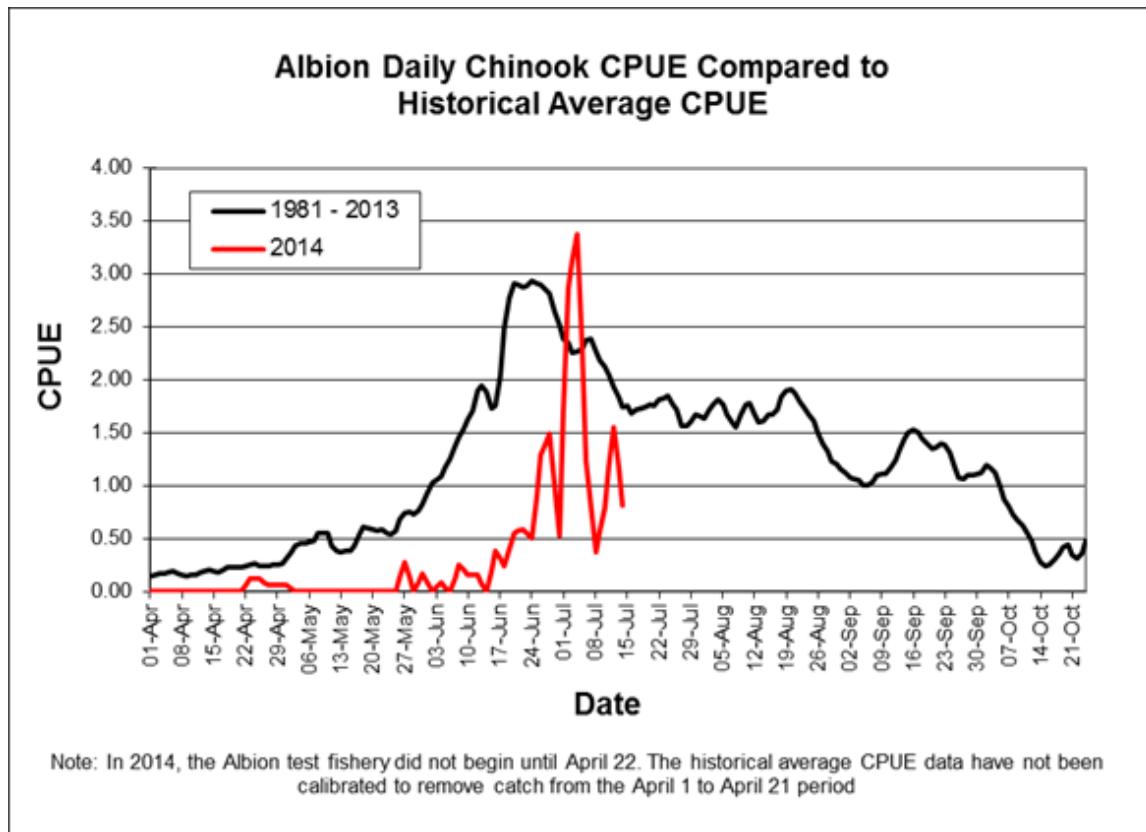
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## Fraser Salmon Update

### Fraser Chinook Albion Test Fishery

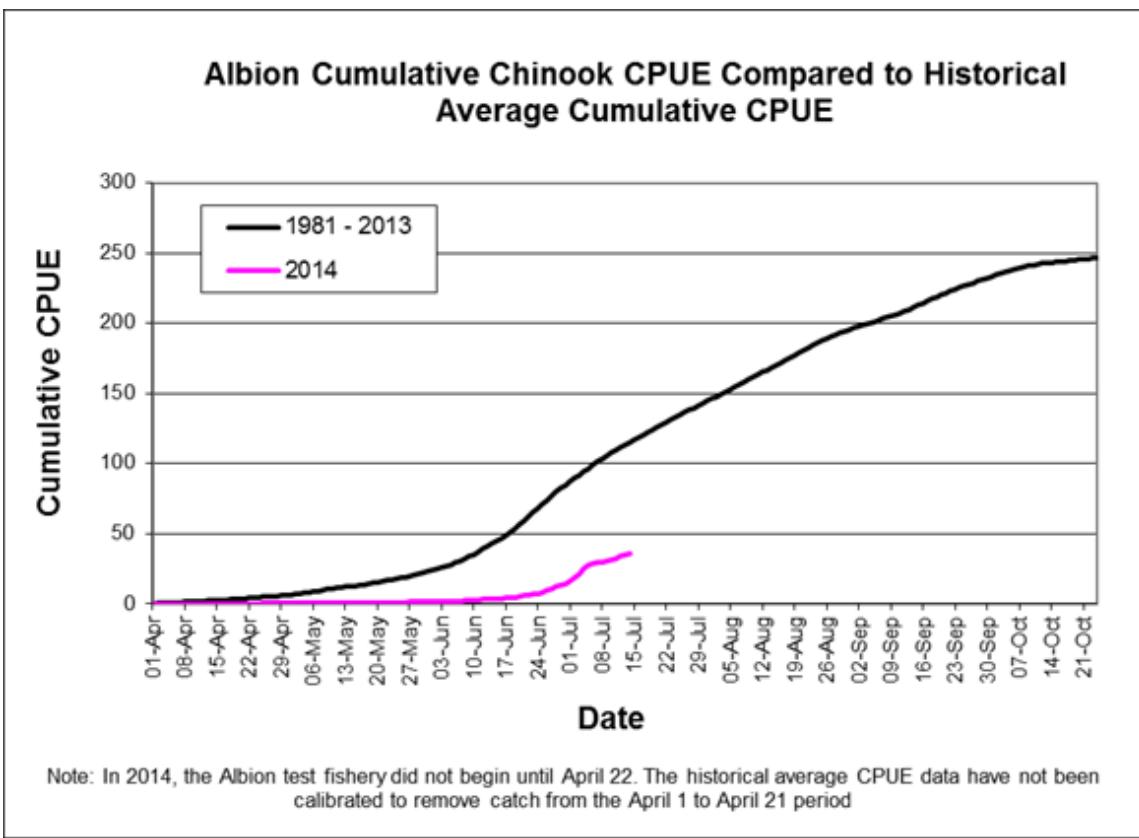
As reported last week, the Albion Chinook Test fishery catches have shown some positive catch results over the past couple of weeks. We will have to wait and see how the various stocks break out in the test fishery catch, but the overall trend is something we haven't seen for a few years (refer to the test fishery graphs below).



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## Fraser Salmon Update



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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## Fraser Salmon Update

### Fraser Sockeye

The Pacific Salmon Commission (PSC) distributes the Fraser River Panel 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 18<sup>th</sup>).

In general, test fishing catches in Area 20 have been lower than expected for Early Stuarts, but Early Stuart passage at Mission has been stronger than what was expected based on the Area 20 test fishery. The Area 12 Round Island test fishery became operational on July 10<sup>th</sup>, and Early Stuarts have been a significant component of that test fishery, indicating a larger than expected Early Stuart diversion through Johnstone Strait. **The Mission hydro-acoustics abundances and model estimates indicate a larger Early Stuart run than the current in-season assessment of 189,000. Therefore, at the July 18<sup>th</sup> Fraser River Panel meeting, the Panel adopted an in-season Early Stuart estimate of 240,000 with July 9<sup>th</sup> Area 20 timing.** The proportional Management Adjustment (pMA) for Early Stuarts remained unchanged from Tuesday's meeting – 2.12. As described earlier – **there is no Total Allowable Catch at this abundance and Management Adjustment. Due to the later than expected timing of Early Stuarts, closure window dates have been extended from the pre-season schedule. Seine test fisheries in Juan de Fuca and Johnstone Strait have also been delayed due to the later Early Stuart timing.**

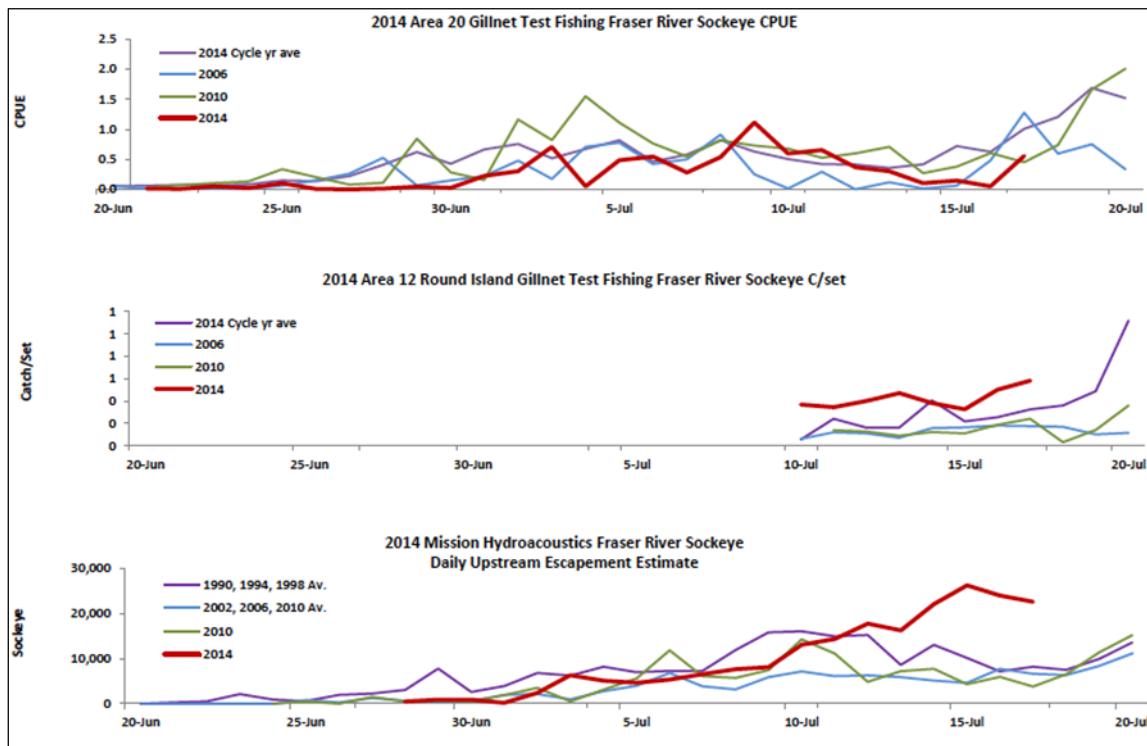
Marine test fisheries are starting to show increased proportions of Early Summers in the mix, and a small proportion of Summers other than Harrison (Chilko/Quesnel, Late Stuart/Stellako).

Approximately 160,000 Early Stuart, 32,000 Early Summer and 18,600 Summer sockeye (most of the Summers are Harrison) are estimated past the Mission hydro-acoustics station, for a total sockeye passage of 210,400 to date. Reminder: *the expected 50% date for Early Summers isn't until August 4<sup>th</sup> and Summers is August 10<sup>th</sup>*, so it's important to keep in mind - other than Early Stuarts - the remainder of the Fraser sockeye return is very much in the early stages.

***See the next page for Test fishing graphs and Mission hydro-acoustics information from the distribution package.***



### Test Fishing Graphs and Mission Hydro-Acoustics Information

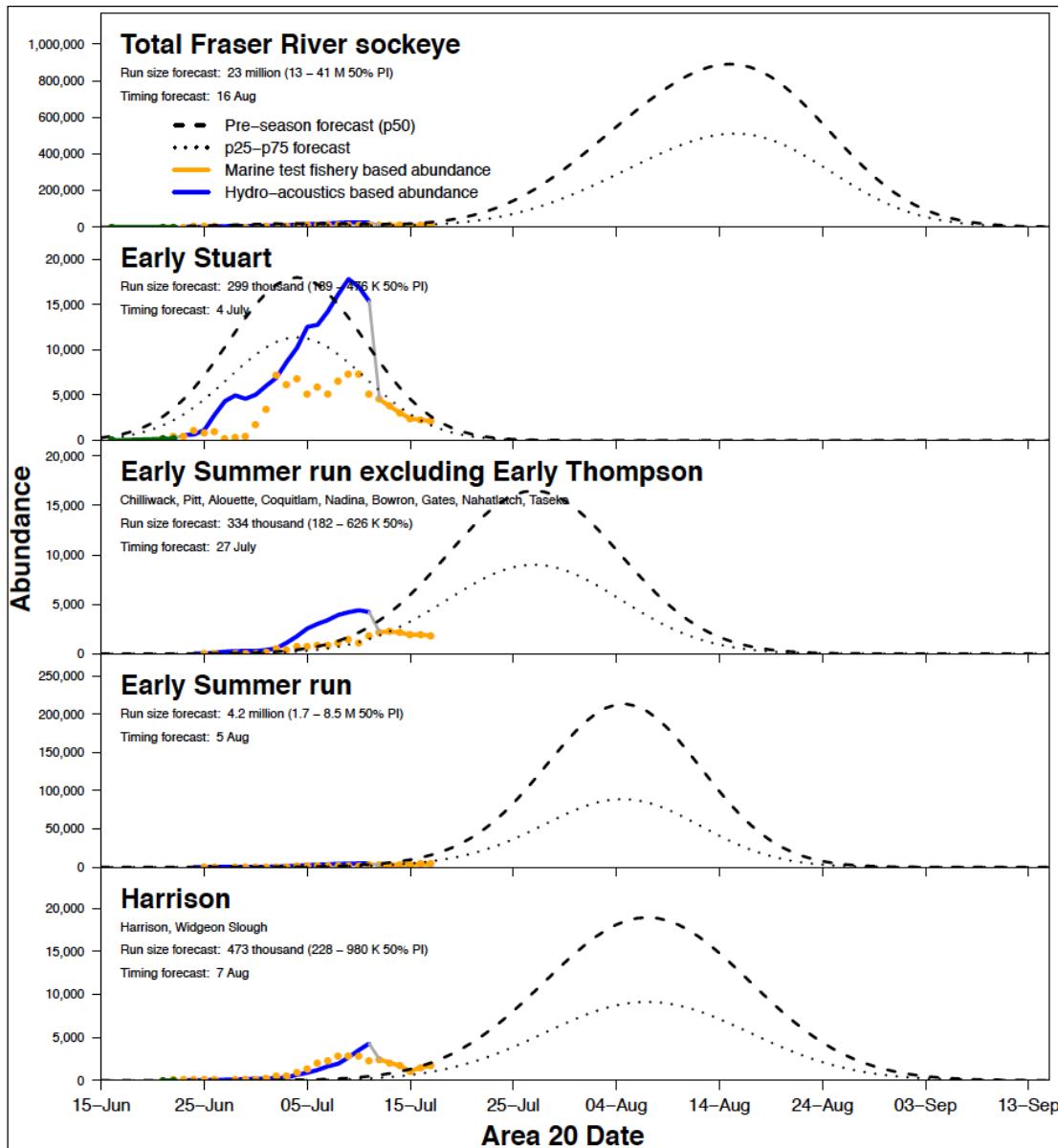


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### Estimated Abundance and Timing

The following graphs shows the 2014 estimated abundance and timing based on Marine and in-river test fisheries and Mission hydro-acoustics compared to forecast. With the exception of Early Stuart, all other return information is still very early in the season.



- The next Fraser River Panel meeting is scheduled for Tuesday July 22<sup>nd</sup>.



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### General Information

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

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/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/index-eng.html>

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