



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

### 2015 FRASER SALMON UPDATE

By: Pete Nicklin, FRAFS Biologist

The overall 2015 Fraser sockeye return is far below pre-season expectations. With the exception of Early Stuart and the Early Summer Miscellaneous group, all other sockeye are returning in abundances far below the pre-season P50 forecast.

To put the current sockeye situation into perspective I will compare the pre-season planning forecast to the adopted in-season returns.

Sockeye Management Group	Pre-Season Planning Forecast	In-Season Adopted Run Size
Early Stuart	16,000 (P25 Forecast)	<b>32,000</b>
Early Summer	837,000 (P50 Forecast)	<b>350,000</b>
Summer	4,675,000 (P50 Forecast)	<b>1,150,000</b>
Lates	1,236,000 (P50 Forecast)	<b>419,000</b>
<b>TOTAL</b>	<b>6,764,000</b>	<b>1,951,000</b>

The narrative for this year's in-season goes something like this.

Fraser River temperatures have been a record high, and above average for the entire season. Flows have been at or tracking record lows for the entire season.

#### Early Stuarts

Conservation concerns for **Early Stuarts** resulted in planning at the P25 forecast. In-season information and assessment showed Early Stuarts returning at a level similar to the P50 forecast, which ended up at 32,000.

#### Early Summers

**Early Summers** were forecast at 837,000, and the first part of the Early Summers (the Miscellaneous Group) returned in abundances similar to the P50 forecast. However, the majority of the abundance was forecasted in the Early Thompson part of the Early Summer group, and these are the later timing component of the group.

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In-season information and assessment has showed a very low return of the Early Thompson group. The consequence of this lower return was successive downgrades of the Early Summer in-season run size to 424,000 and then to 350,000 based on the low return of Early Thompson.

## Summer Run

The bulk of the 2015 Fraser sockeye return was forecasted to be in the **Summer** run management group (Late Stuart/Stellako/Chilko/Quesnel/Raft North Thompson and Harrison). Test fishery and hydro-acoustics information and assessment shows these stocks all returning lower than the P25 forecast, and in the case of Harrison – far below the P25 forecast. As a result of this, the Fraser River Panel adopted the P25 forecast for Summers on August 11<sup>th</sup> - 1.7 Million - and further downgraded the run size to 1.15 Million on August 14<sup>th</sup>. That abundance is about 3.5 Million sockeye less than forecast, and an abundance that eliminated Total Allowable Catch (TAC) and put the Summer run management into a Low Abundance Exploitation Rate (LAER) situation. The LAER is a 10% Exploitation Rate intended to provide opportunity to harvest other species and more abundant stocks.

## Late Sockeye

The test fishery signals for **Late sockeye** are also not at pre-season expectations, and given the information in hand, the Fraser River Panel adopted the P10 abundance of 419,000 at the August 14<sup>th</sup> meeting.

## Sockeye Closures

First Nations fisheries directed at sockeye are being closed or are closed already in the marine area, lower Fraser and mid-Fraser. Fisheries in the Thompson system and the upper Fraser are currently being discussed, and will be impacted by the lower abundances as well. There have been US fisheries on the Early Summers and part of the Summers, as well as test fisheries on these stocks. There have been no Canadian commercial or recreational directed sockeye fisheries on Fraser sockeye this year. The test fishery changed to non-retention of sockeye except for samples on August 13<sup>th</sup> due to the low return.

The Panel will still meet, information and assessment will continue, but at this time, the prospects for this sockeye season are not promising.

The Fraser environmental and sockeye update is a summary of information from the August 13<sup>th</sup> Fraser River Panel Technical Committee distribution, FRAFS in-season update call (August 13<sup>th</sup>), and August 14<sup>th</sup> Fraser River Panel teleconference.

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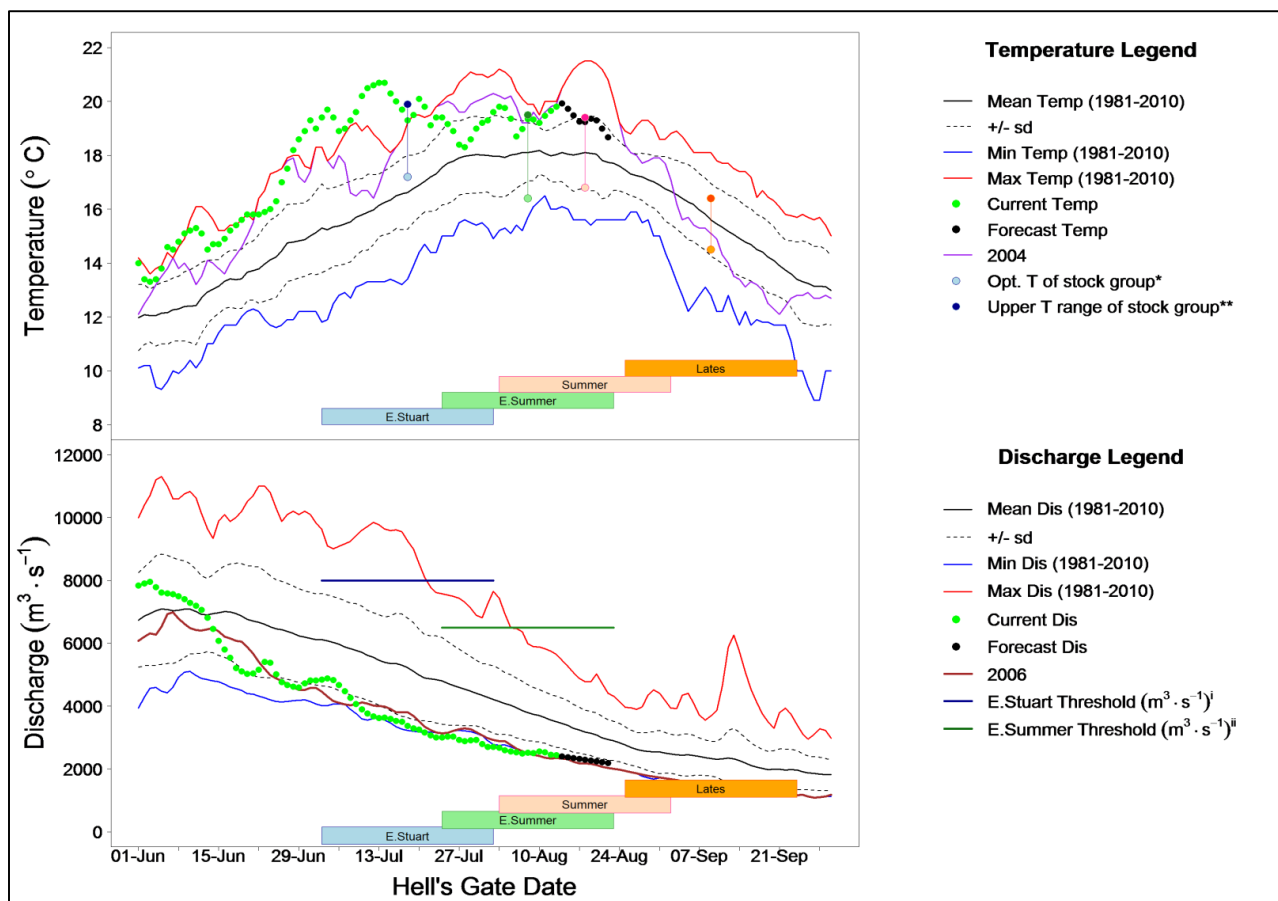
## Fraser River Conditions

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 14<sup>th</sup>, 2015):



The Fraser River water temperature is currently 19.8 degrees Celsius (1.8 degrees Celsius above average for this time of year), and is forecast to decrease to a temperature of 19.4 degrees Celsius by August 19<sup>th</sup>. The Fraser River discharge continues to track at near-record low levels for this time of year with a flow of 2,440 m³/sec at the Qualark water station on August 13<sup>th</sup> (30% below average for this time of year). The discharge is predicted to continue tracking at the minimum observed values, with a forecast discharge of 2,269 m³/sec by August 19<sup>th</sup>.

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## Fraser River Fisheries Information

Fraser First Nations Fisheries information can be found on the DFO website at:

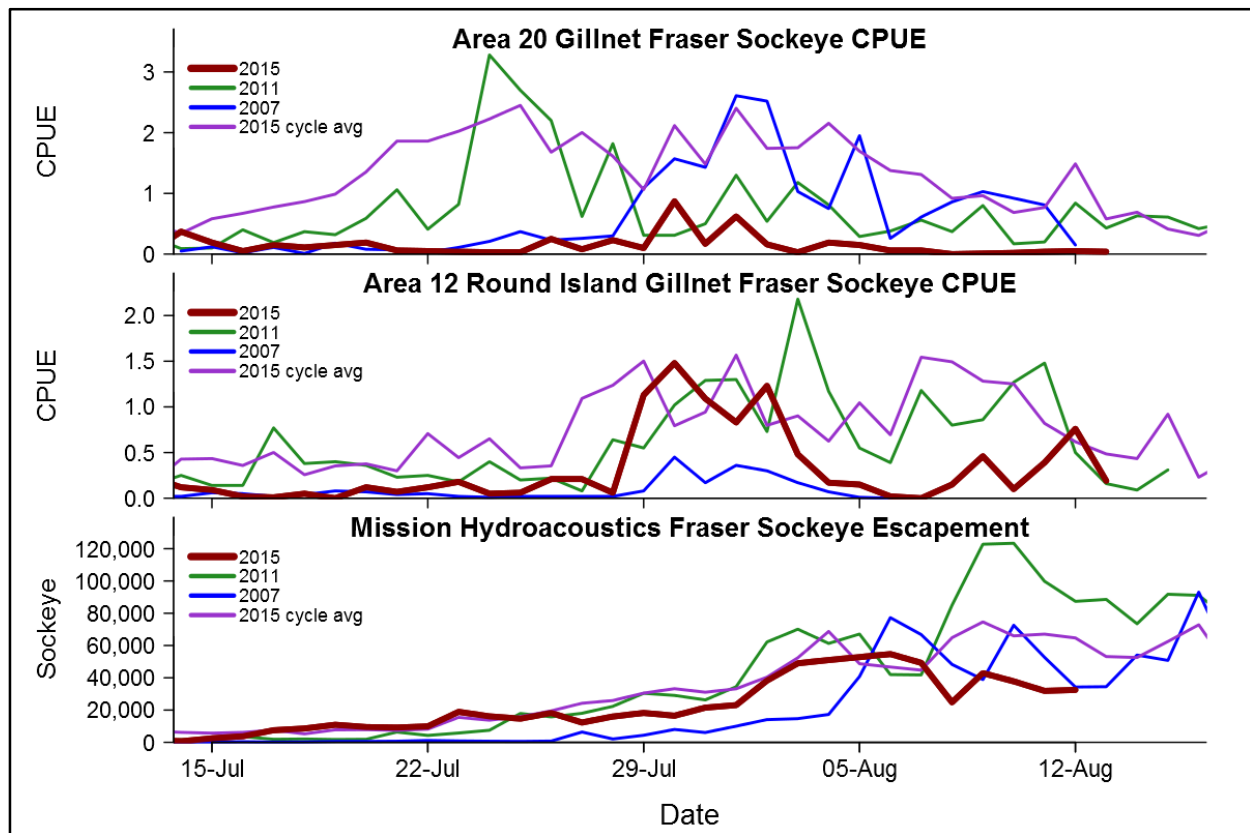
<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html>

## Fraser Sockeye & Pink 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 14<sup>th</sup>, 2015) and the Fraser River Panel meeting from the same day.

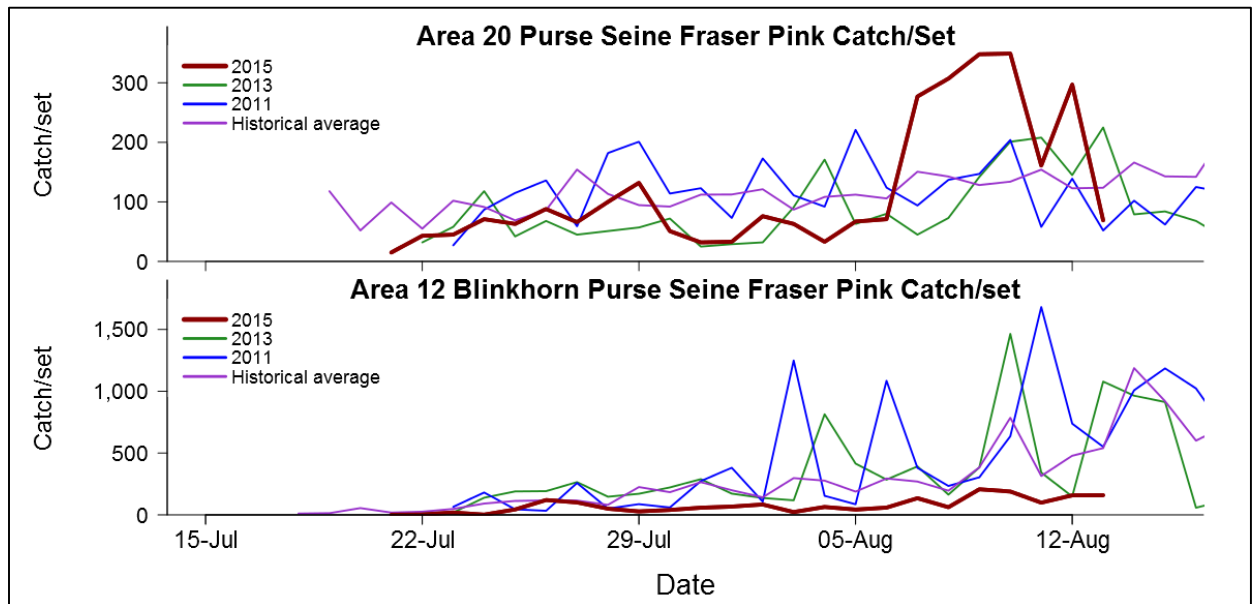
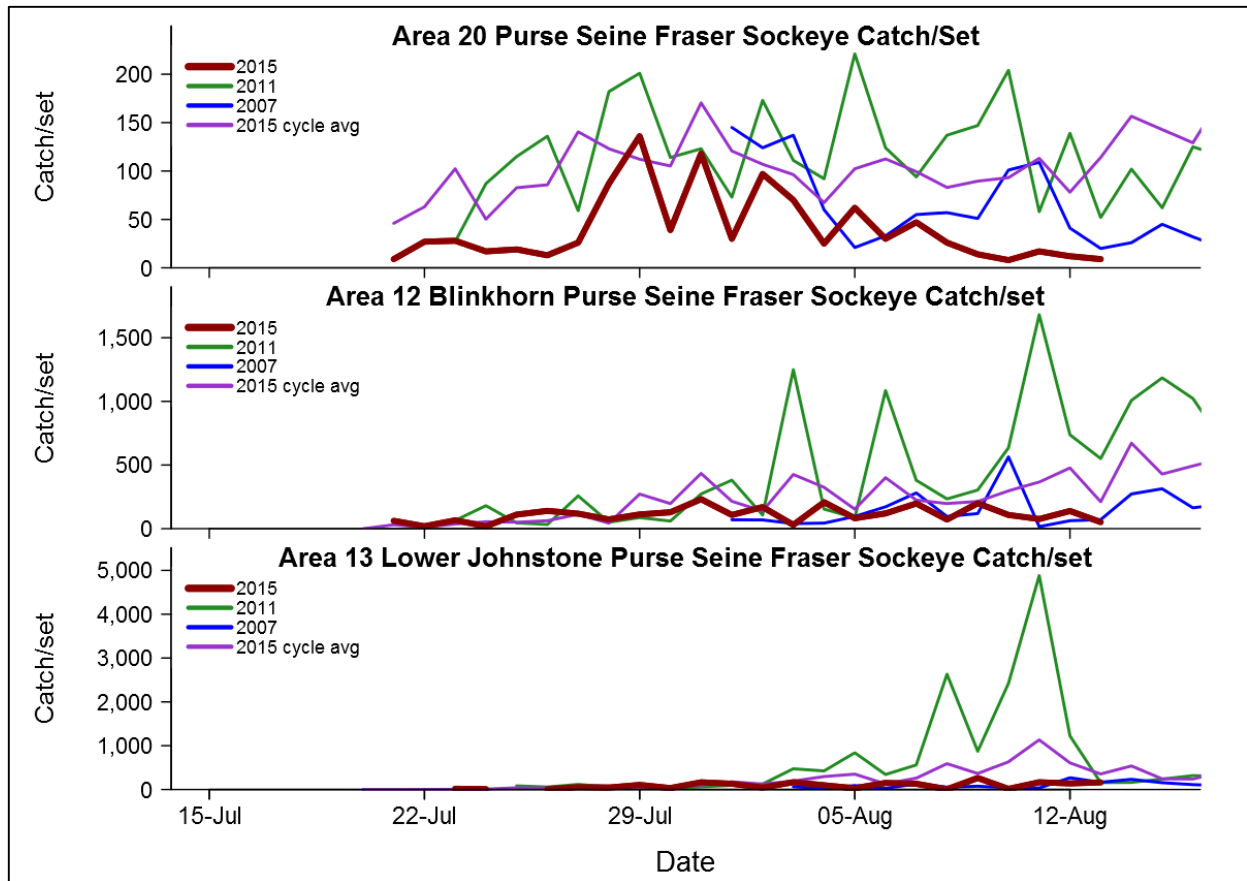
Test fisheries (gillnet and purse seine) are in place in the Fraser River and both marine-approach areas (Strait of Juan de Fuca and Johnstone Strait). Marine Gillnets were terminate a few days early; Thursday, August 13th was their last fishery. Hydroacoustics programs are in operation at Mission and Qualark (Yale). A total of 930,500 Fraser sockeye have been accounted-to-date, comprised of almost 32,800 Early Stuart sockeye, 284,900 Early Summer run sockeye, 602,100 Summers and 10,700 Lates. The Fraser Pink migration is underway, with an accounted catch of 132,800.

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



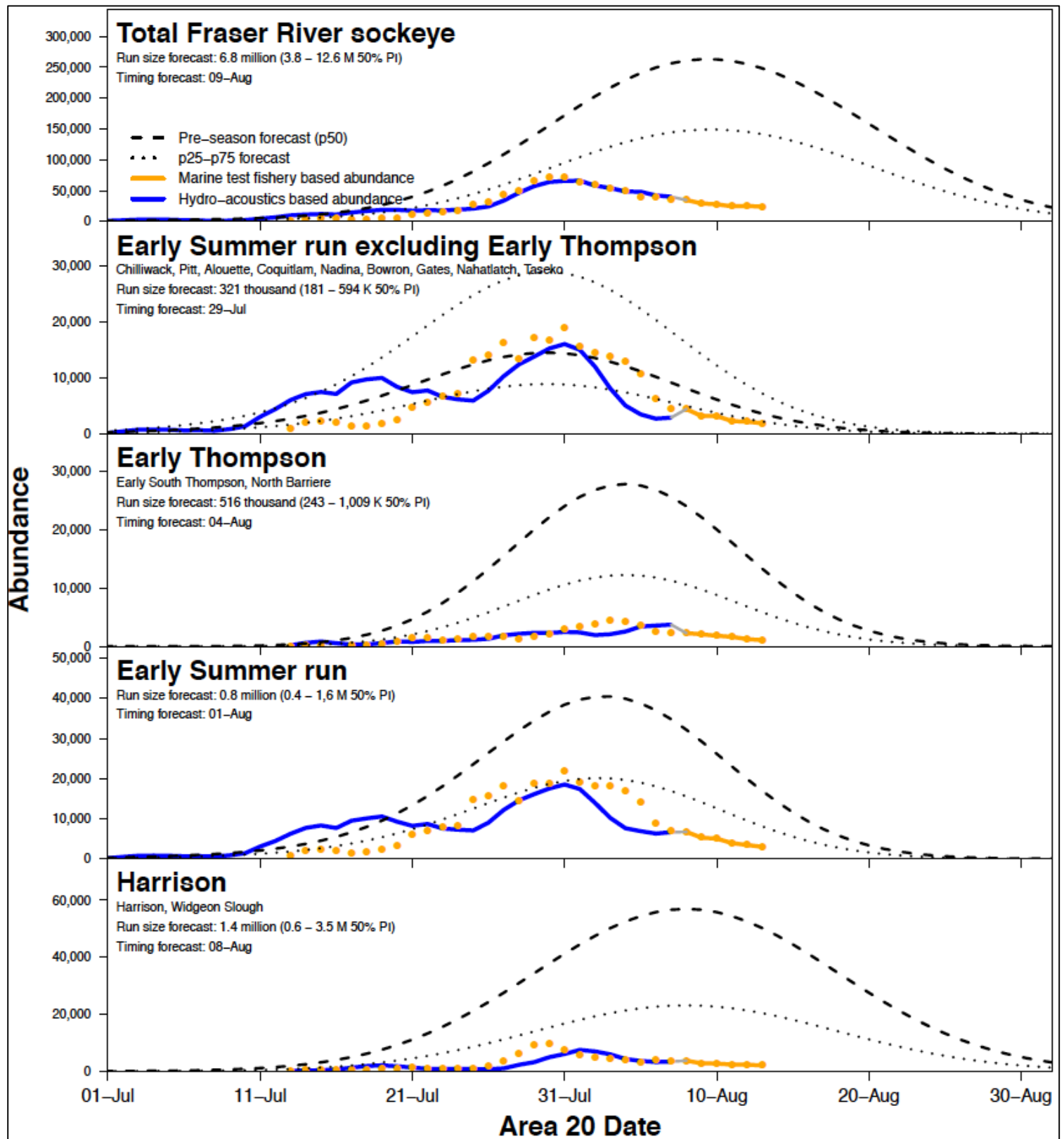
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## Fraser Sockeye & Pink Salmon

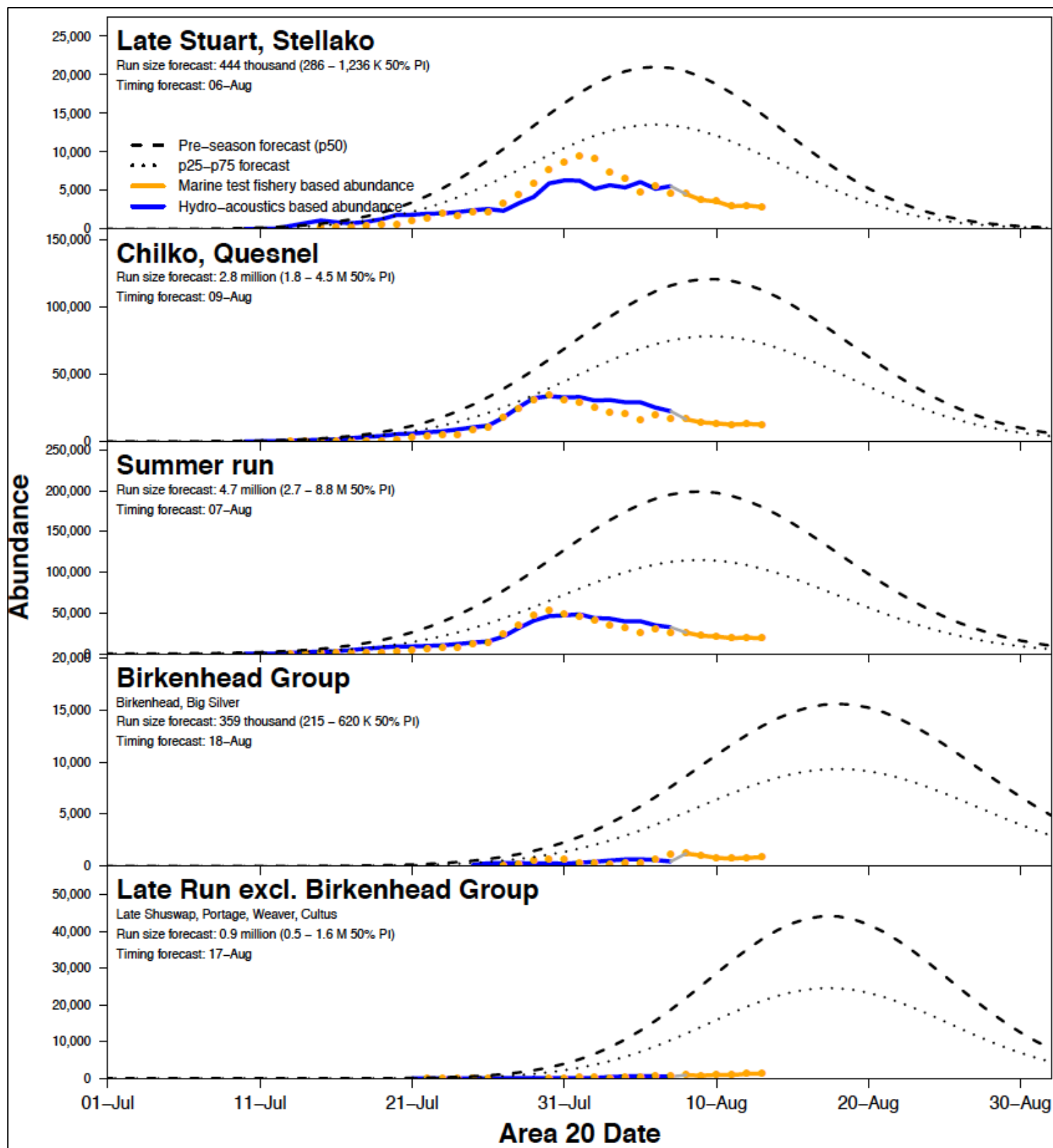


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## Estimated Abundance and In-Season Timing Compared to Forecast



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The next Fraser River Panel meeting is scheduled for Tuesday August 11<sup>th</sup>.

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## **Links**

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/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>

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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