



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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### Inside Route

Test fisheries in Johnstone Strait show an increase in the number of migrating salmon taking the “inside route” - through the Strait of Georgia – to the Fraser.

Accordingly, the **Diversion Rate** has risen from the pre-season forecast of 56% to an in-season five-day average of 67%.

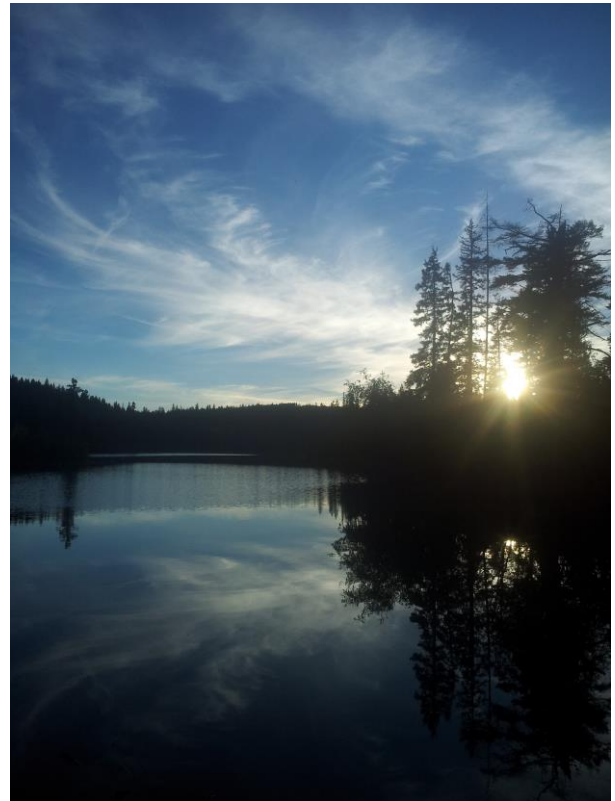
#### Early Summer Run

First Nations marine and in-river fisheries were opened based on the pre-season forecast (as opposed to an in-season run size estimate) with the hope that the run would come in at least close to the forecast.

However, it’s still too early to provide an in-season estimate for this management group. Reason being, the Early Thompson component isn’t showing up as expected. They could be late, lower than forecast, or both. We’ll know more by early next week.

To date, 234,000 **Summer Run** have been accounted for. The in-season run size estimate for the **Early Stuart Run** remains at 240,000.

About 5,700 **Late Run** have passed Mission. Some “Lates” seem to be holding in the marine area; if they were to enter the river this early, they wouldn't survive to spawn.



*Have a safe and enjoyable  
long weekend.*

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## Fish Tech 101: Test Fisheries



Source: Pacific Salmon Commission (PSC) website

**Test fisheries** are overseen by the Pacific Salmon Commission. In-season sampling programs are run by staff and regular updates are provided to the Fraser River Panel for use in establishing and fulfilling their management goals.

The above map gives you a sense of where they're located. The southern-most are in the Strait de Juan de Fuca and they circle up between Vancouver Island and the mainland through the Strait of Georgia to Johnstone Strait. In addition, Sumas First Nation (odd year pinks) and Yale FN (at Qualark) run test fisheries. Hell's Gate is used for observation and to count fish passage.

Two types of nets are used in Canadian waters: **gillnet** and **Purse Seine**. Species and stock composition as well as abundance and timing are considered when deciding on what type of net to use.

For example, marine gillnets have been used for Early Start and Early Summer stocks and river gillnets are used for all stocks. Purse Seines are much more expensive to operate than gillnets, but catch more fish. Marine seine test fisheries start later than gillnets when the overall abundance is larger and fish aren't as spread out. These test fisheries are used to assess mid and late summer stocks as well as pink salmon.

For test fishing summaries, reports and maps, visit: [http://www.psc.org/info\\_testfishing.htm](http://www.psc.org/info_testfishing.htm)



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## FRASER SALMON UPDATE

*By: Kelsey Campbell, Biologist*

The Fraser sockeye and environmental update is a summary of information from the August 1<sup>st</sup> Fraser River Panel distribution, FRAFS in-season update call (July 31<sup>st</sup>), and August 1<sup>st</sup> Fraser River Panel teleconference.

The most recent stock ID analysis of Early Stuart sockeye shows that migration is complete in the marine area and continues to drop in proportion at Mission. The Early Stuarts are predicted to fall short of the in-season adopted run size of 240,000 with 218,000 counted past Mission, 3,300 in catch, and another 1,300 projected en rout to Mission (total of 222,600 fish). **Due to the high Management Adjustment (MA) resulting from Fraser River temperatures for a large part of the Early Stuart migration, 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%).**

Test fishery catches in Area 20 (Juan de Fuca) seine fishery continue to be low, while Areas 12 and 13 (Johnstone Strait) seine fisheries have shown higher catches. Mission catch continues to increase, supporting a high diversion rate of 72% through the northern route. The larger catches in the Johnstone Strait test fisheries are expected to reach the Mission this weekend (7 day migration from Area 12 to Mission).

### **Fraser River Conditions**

The BC River Forecast Centre website (see Links section) 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 section).

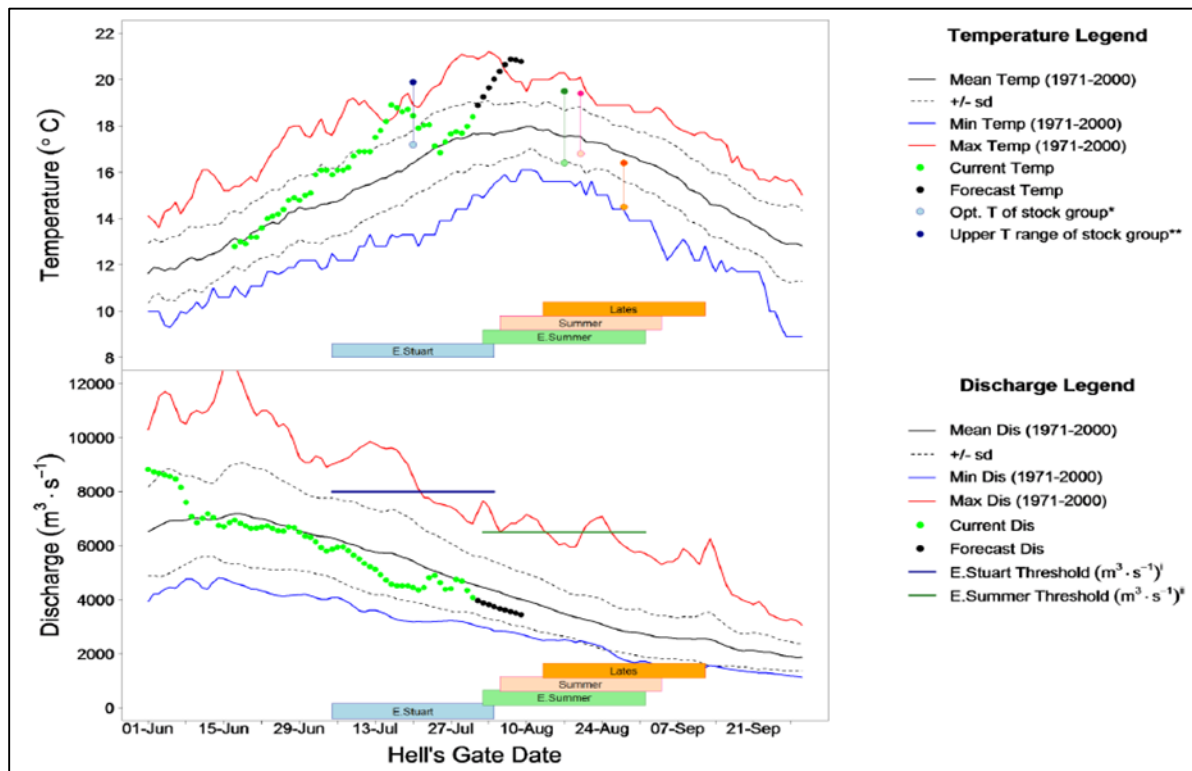
Fraser River temperature has increased to 18.4 degrees Celsius and is forecast to continue increasing up to 20.7 degrees Celsius by the 6<sup>th</sup> of August resulting in above maximum observed temperature for this time of year. The Fraser River discharge is forecast to remain below average for this time of year. The current discharge at Qualark is 4,075 m<sup>3</sup>/sec which is 11% below historic average for this day. The discharge is predicted to drop as low as 3,616 m<sup>3</sup>/sec by August 6<sup>th</sup>.

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## **Fraser River Conditions (continued)**

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution August 1<sup>st</sup>, 2014):



## **Fraser Chinook and Sockeye First Nations FSC Catch**

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>

The Mid and Upper Fraser Harvest reports are now being posted to the DFO website (accessed through the link above). The Mid and Upper Fraser First Nations catch estimate to July 20<sup>th</sup> is 528 Chinook (DFO) and 600 sockeye (PSC August 1<sup>st</sup> distribution).

The Lower Fraser First Nations Chinook catch estimate to July 27<sup>th</sup> is 11,433 (DFO), and the sockeye catch is estimated at 18,500 (PSC August 1<sup>st</sup> distribution).

The Marine First Nations catch is estimated at 51,300 Sockeye.



## **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 (August 1<sup>st</sup>).

In general, test fishing catches continue to show lower than expected proportions of Early Summer stocks. The Area 20 test catches continue to be low and are comprised of mostly the Summer run aggregate with high proportions of Harrison and Chilko/Quesnel stocks. The Area 12 test fishery continues to show much larger catches than the Area 20 fishery. The stock ID in Area 12 shows varying proportions of Early Summers, however is presently dominated by Summers with decreasing proportion of Late Stuart/Stellako and increasing proportion of Chilko/Quesnel.

The Early Summers appear to be less than pre-season forecast or later than the predicted timing. While the earlier timed Early Summers are represented in stock ID from the test fisheries, as mentioned the Early Thompson is not yet present in relation to pre-season expectation. The Early Summers excluding the Early Thompson component are currently tracking at the p25 level (graph below). The Early Thompson pre-season estimate is 3.8 million and makes up the bulk of the Early Summer aggregate estimate (4.13 million), however it is still too early to develop a management adjustment for Early Summers and an in-season estimate and timing for the Early Thompson component.

Approximately 218,000 Early Stuart, 176,200 Early Summer, 214,800 Summer sockeye and 5,500 Lates are estimated past the Mission hydro-acoustics station, for a total sockeye passage of 614,500 to date and another 683,900 fish projected en route to Mission in the next week. Reminder: the updated *expected Area 20 50% date for Early Summers is August 7<sup>th</sup>* (from Aug 4<sup>th</sup>). Note: Early Summer Area 20 50% date in 2010 was Aug 11<sup>th</sup>. *Summer aggregate Area 20 50% date is August 15<sup>th</sup>* (from Aug 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, with half of the forecasted total run being the Late run aggregate.

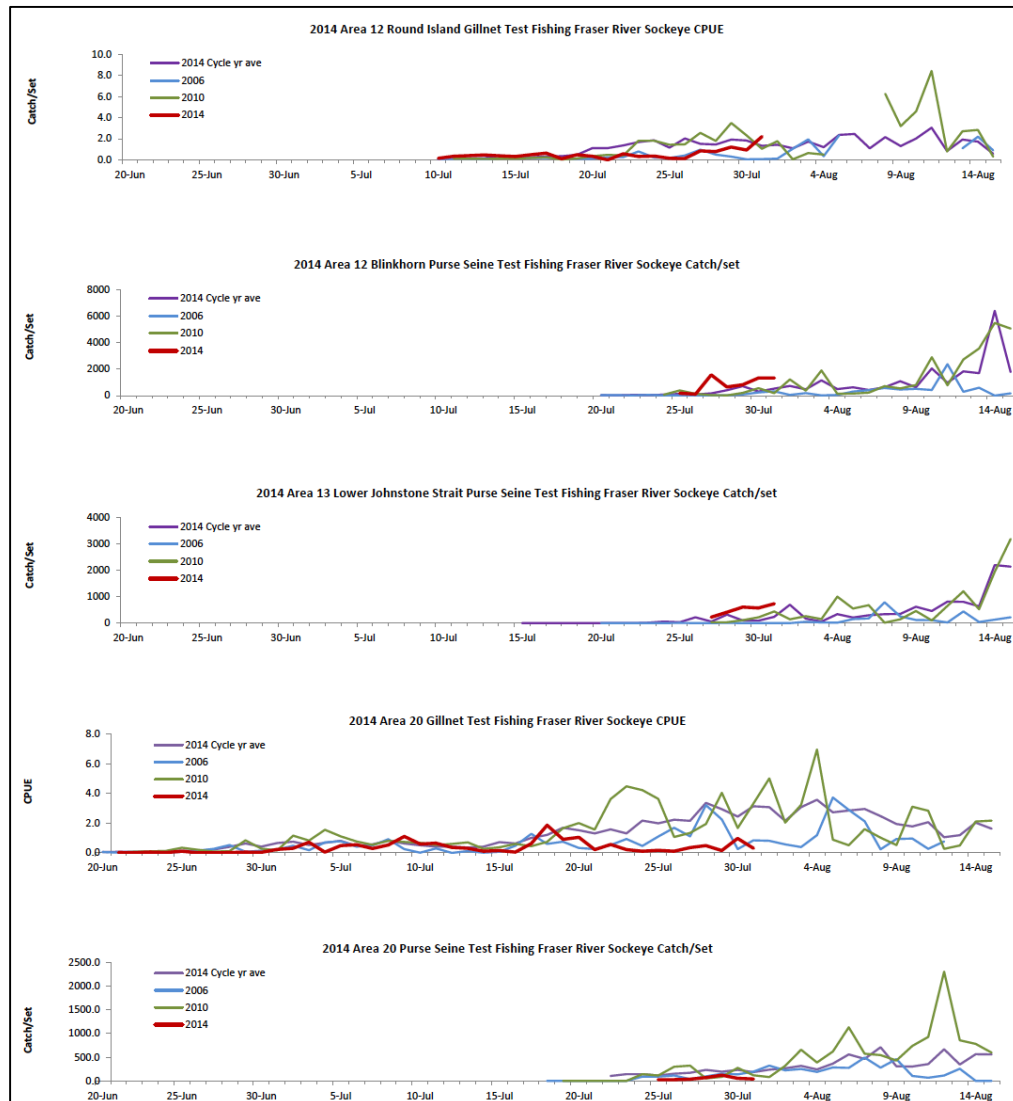
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## **Fraser Sockeye**

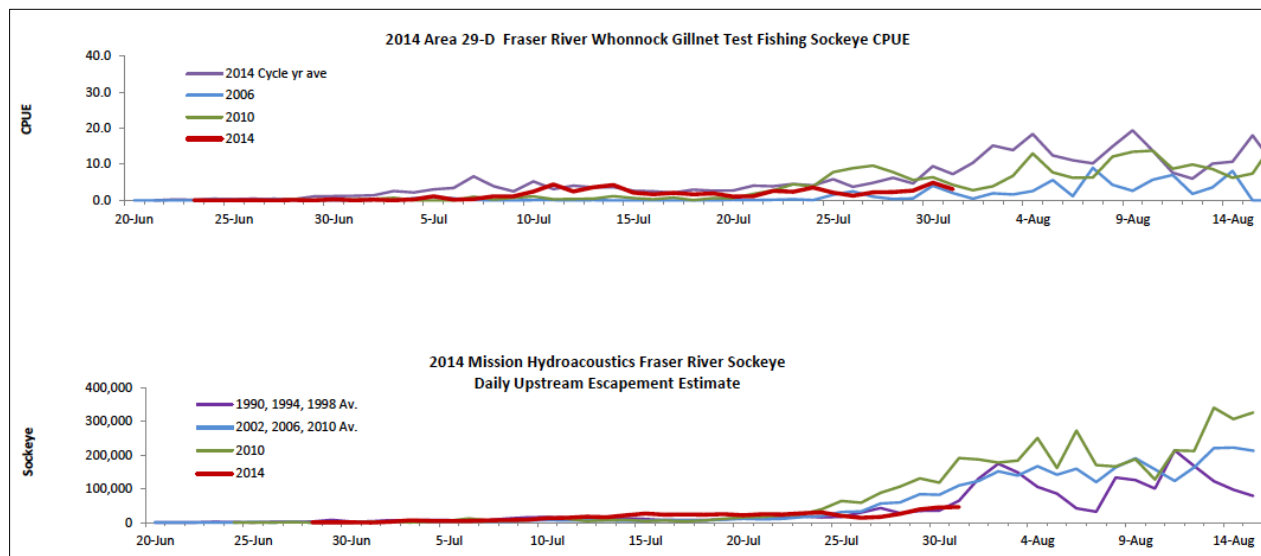
Test fishing graphs and Mission hydro-acoustics information from the distribution package look like this:



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## **Fraser Sockeye**

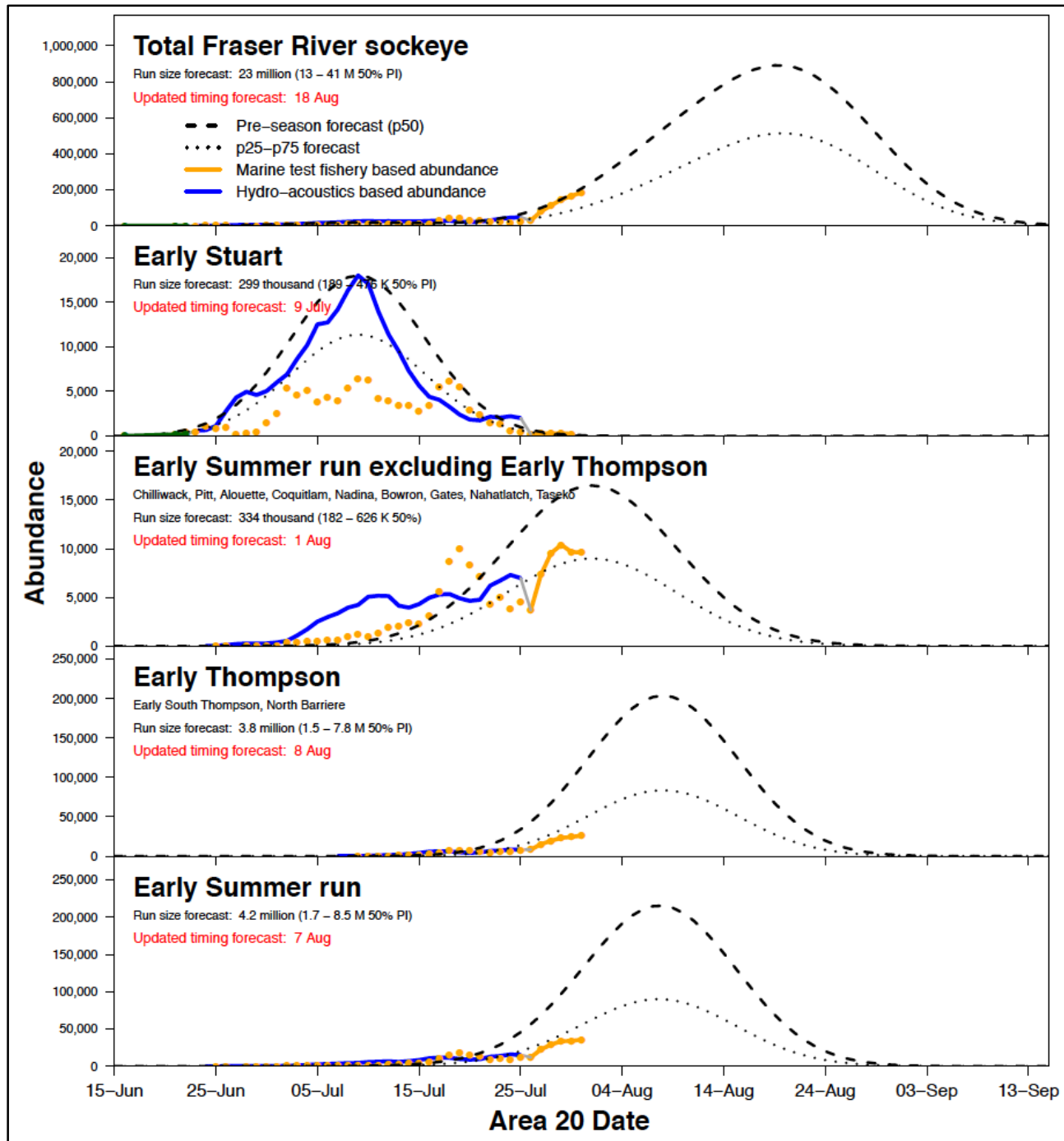


The graphs on the following two pages show the 2014 estimated abundance and updated in-season timing based on Marine and in-river test fisheries and Mission hydro-acoustics compared to forecast. With the exception of Early Stuart, all other return information is still very early in the season

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## Estimated Abundance and Updated In-Season Timing

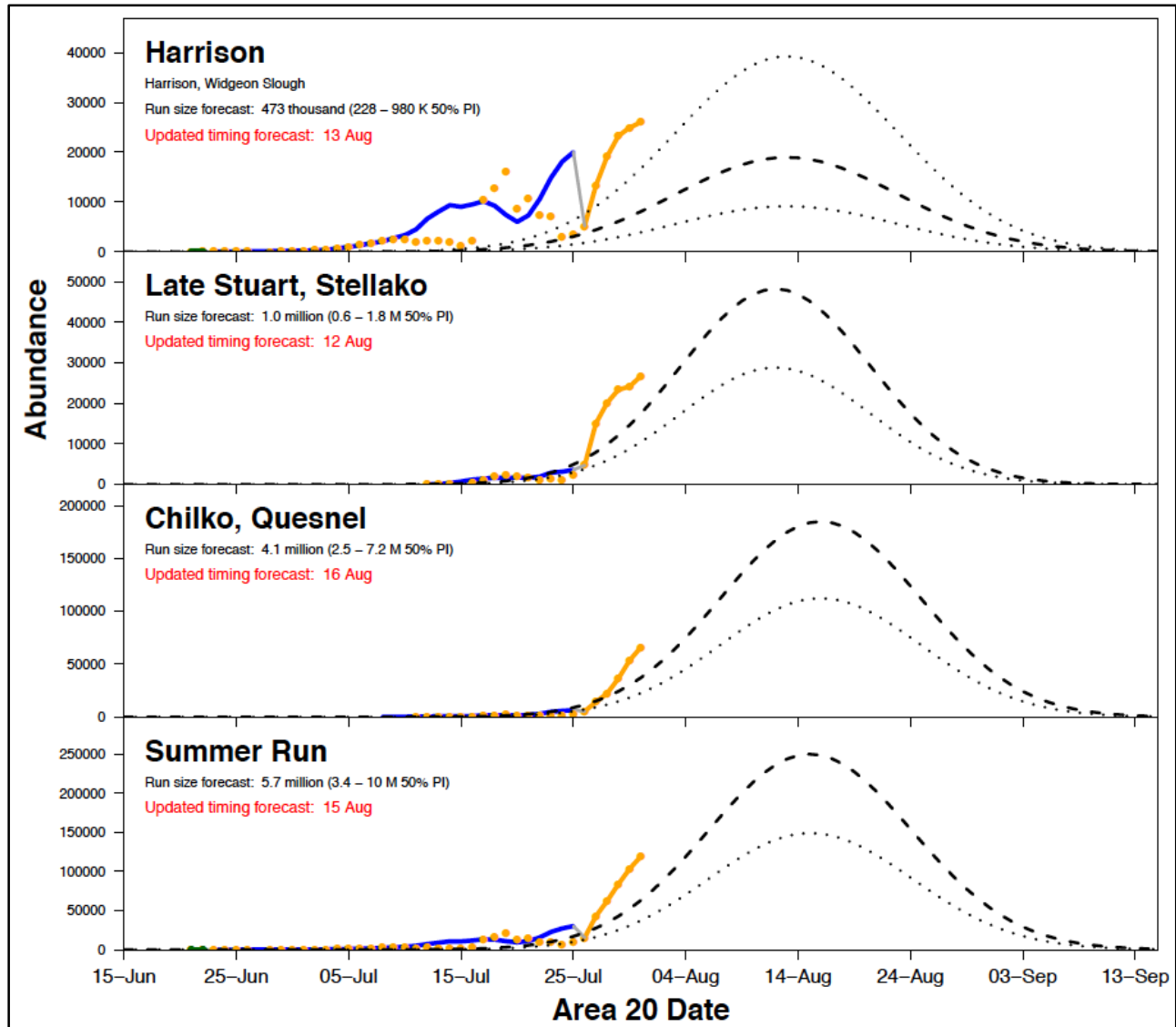


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## Estimated Abundance and Updated In-Season Timing



- The next Fraser River Panel meeting is scheduled for Tuesday August 5<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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