



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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A Question of Timing

The Early Stuart, Early Summer and Summer Sockeye Runs

There's a "lull" between the Early Stuart (which peaked five days later than forecast) and the Early Summer and Summer Runs. Is this later-than-normal migration timing, or, a lower-than-forecasted number of spawners for the Early Summer and Summer Runs? Next week's test fisheries' results should give us a better indication.

River flow and temperature

The Management Adjustment (MA) for these three runs is based on Fraser River water temperatures and flow.

With the recent rains, river flow increased to very near the norm and the water temperature decreased to 17.1°C (normal for the date measured). However, temperatures are expected to rise in the coming days.

Summary

All returning Early Stuart are needed for the spawning grounds. It's too soon to tell about abundances and fishing opportunities for the Early Summer and Summer Runs.

Fish Tech 101

Diversion Rate

The majority of returning Fraser River sockeye take the "outside route": they migrate down past the west coast of Vancouver Island and approach the Fraser through the Strait of Juan de Fuca.

When Fraser sockeye choose the "inside route" and migrate down through Johnstone Strait, they're *diverging* from the outside route.

The **Diversion Rate** is the percentage of the total sockeye run that chooses the inside route (Johnstone) as compared to the outside (Juan de Fuca) route.

Tracking the diversion rate is important for anticipating where fisheries can take place, as well as, estimating in-season the overall numbers of returning Fraser sockeye.



FRASER SALMON UPDATE

By Pete Nicklin, FRAFS Fraser Fisheries Biologist

The Fraser sockeye and environmental update is a summary of information from the July 25th Fraser River Panel distribution, FRAFS in-season update call (July 24th), and July 25th Fraser River Panel teleconference.

With respect to marine test fishing information and passage at Mission, the Early Stuart sockeye are nearly accounted for (208,000) with another 12,500 projected en route to Mission, and most of the run now in-river. The Early Stuart sockeye picture is similar to last week. The in-season adopted Early Stuart run size remains at 240,000 with an estimated Area 20 50% date of July 9th (5 days later than pre-season expectations). **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 both Area 20 (Juan de Fuca) and Area 12 (Johnstone Strait) have dropped off in recent days while Mission continues to be consistent. Marine test fisheries appear to be indicating a lull in abundance between the Early Stuart and Early Summer aggregates, which has been seen in the past (2010 for example). Marine test fishery catch have been by gillnets to date, but purse seine test fisheries will be added to the assessment program today (Area 20 and Area 12), with the Area 13 seine starting July 27th.

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.

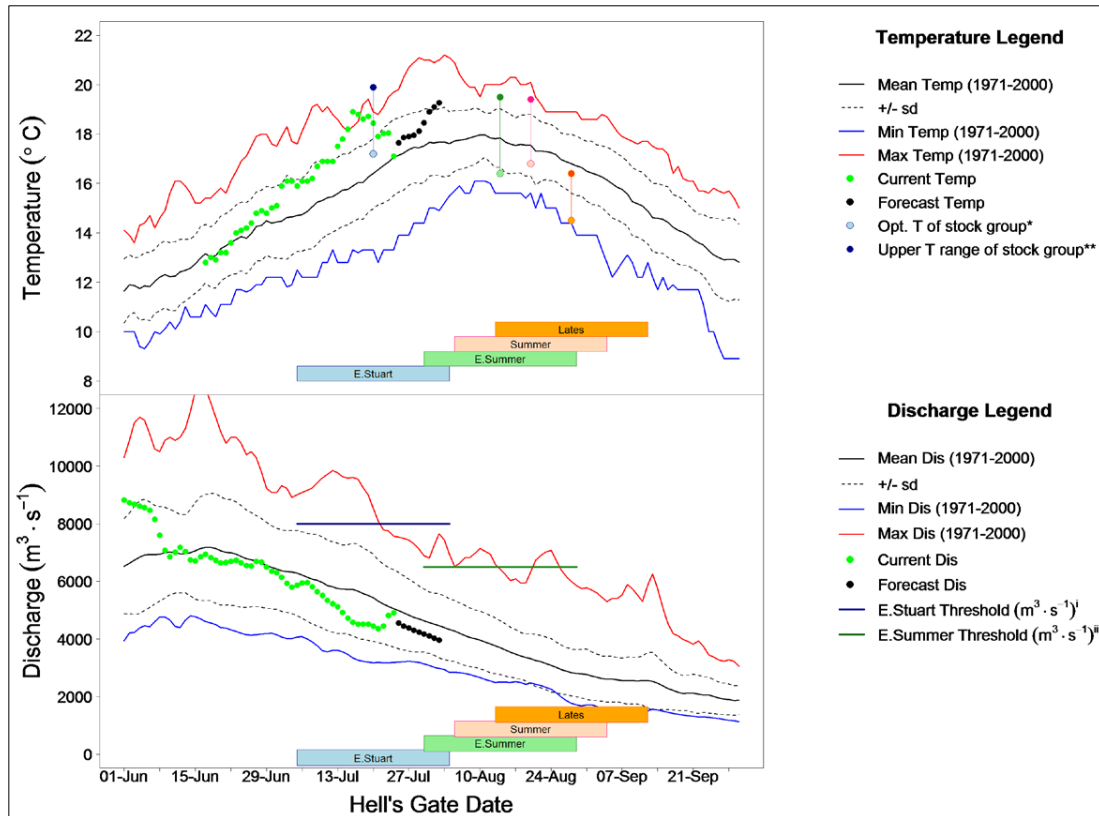
Environment Canada's Water Office webpage provides access to real time hydrometric data at many locations throughout the Fraser watershed (http://www.wateroffice.ec.gc.ca/index_e.html).

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution July 25th, 2014):

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Fraser River Conditions



Fraser River temperature and discharge are currently average based on historic data for this day. Temperatures are forecast to increase from the July 25th Qualark station water temperature of 17.1 degrees to 18.5 degrees Celsius by July 30th. The Fraser River discharge is forecast to track slightly below average for the next several days. Current discharge (July 24th) is about 4,903 m³/sec (3% below average).

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 20th is 282 Chinook and 8 sockeye.

The Lower Fraser First Nations Chinook catch estimate to July 20th is 10,312, and the sockeye catch is estimated at 3,546.

The Marine First Nations catch is estimated 538 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 (July 25th).

In general, test fishing catches have not yet shown the expected increase associated with the building Early Summer return. In particular, Area 20 test catches have been lower than expected based on pre-season timing for Early Summers. The Area 12 Round Island test fishery has dropped off in recent days while Naka Creek (also Area 12) remains stable. As mentioned earlier, the seine test fisheries in both marine approaches will be operational today. Purse seine test fisheries have been delayed due to the later than expected Early Stuart migration and are intended to provide information primarily related to the Summers and Lates.

At today's Fraser River Panel meeting, the proportional Management Adjustment (pMA) for Early Stuarts was reduced from 2.12 to 1.96, and this is expected to be the final adjustment to the Early Stuart pMA. 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 and are now over in the marine area and in lower parts of the Fraser.*

Marine test fisheries are starting to show increased proportions of Early Summers in the mix, and a proportion of Summers that consists mostly of Harrison and smaller proportions of Chilko/Quesnel, Late Stuart/Stellako.

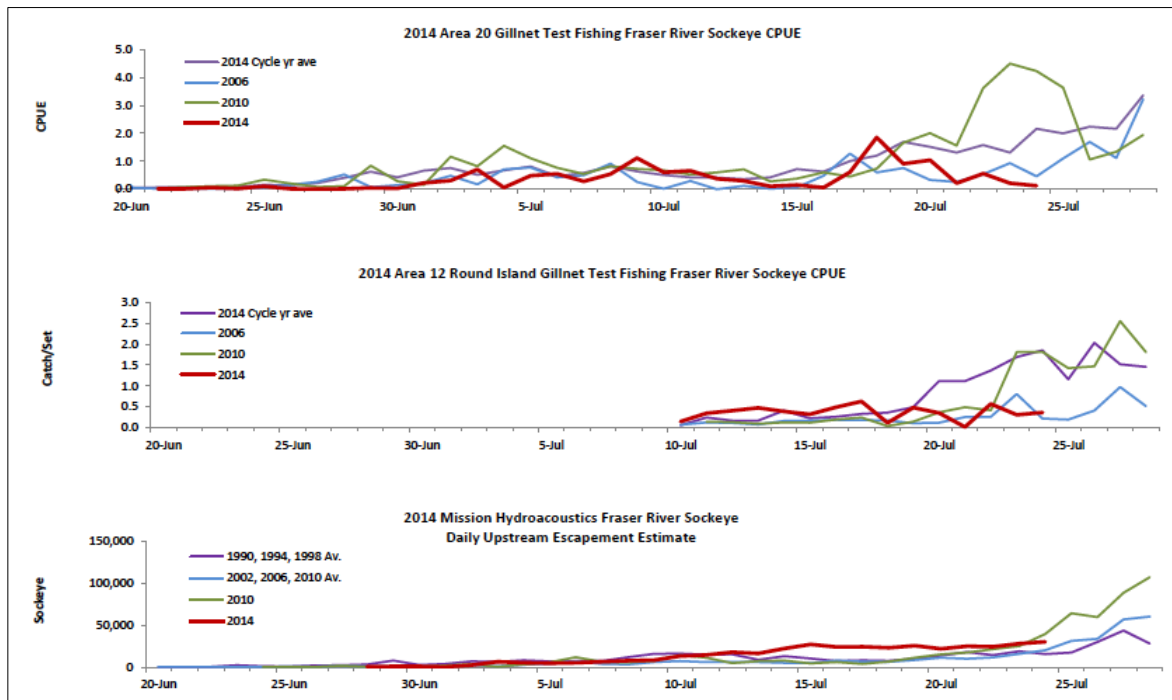
Approximately 205,300 Early Stuart, 97,300 Early Summer and 93,700 Summer sockeye (most of the Summers are Harrison) are estimated past the Mission hydro-acoustics station, for a total sockeye passage of 398,400 to date. Reminder: the updated *expected Area 20 50% date for Early Summers is August 7th* (from Aug 4th). Note: Early Summer Area 20 50% date in 2010 was Aug 11th. *Summer aggregate Area 20 50% date is August 15th (from Aug 10th)*, 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 (continued)

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

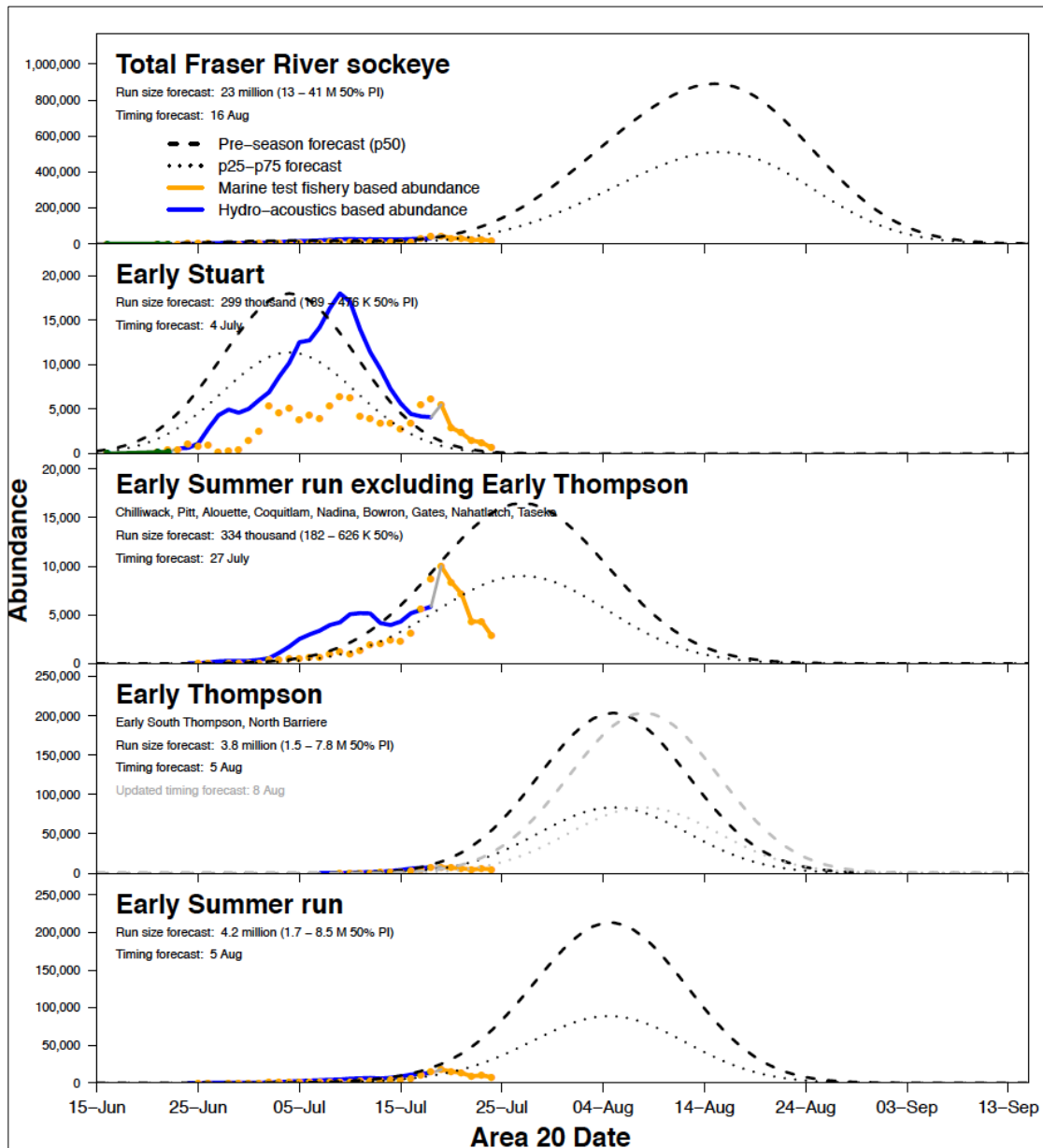


The graphs on the following two pages show the 2014 estimated abundance and timing based on Marine and in-river test fisheries and Mission hydro-acoustics compared to forecast. With the exception of Early Stuart, all other return information is still very early in the season.

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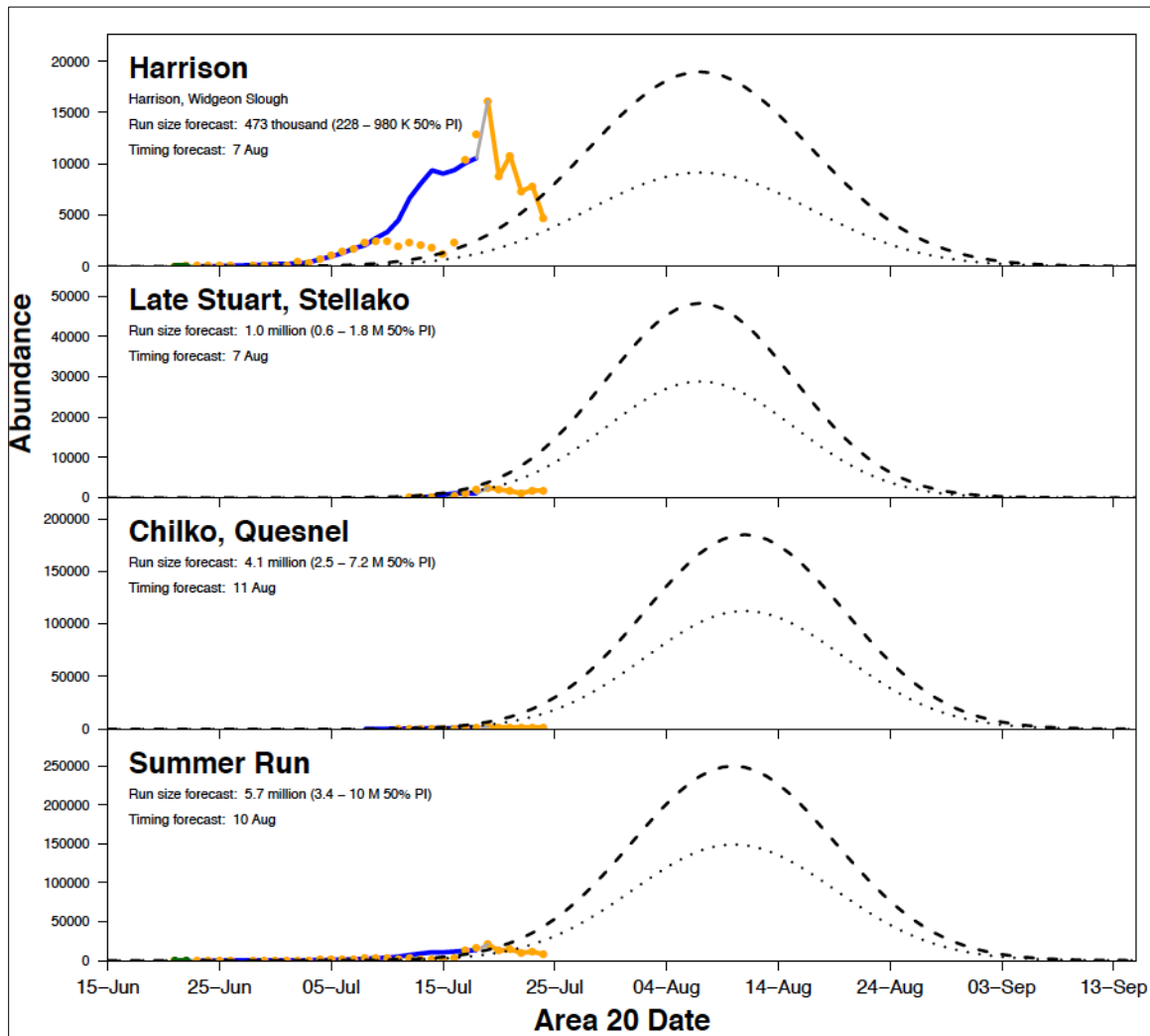


2014 Estimated Abundance and Timing





2014 Estimated Abundance and Timing (continued)



- For more information contact Pete Nicklin by email: pnicklin@telus.net
- The next Fraser River Panel meeting is scheduled for Tuesday, July 29th.



Links

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

- Pacific Salmon Commission Website: www.psc.org
- Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm
- Pacific Salmon Commission News and Regulatory announcements:
http://www.psc.org/news_frpnews.htm
- Fraser River Mission Escapement Reports: 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>



General Information

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

Pacific Salmon Commission Website: www.psc.org

Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm

Pacific Salmon Commission News and Regulatory announcements:
http://www.psc.org/news_frpnews.htm

Fraser River Mission Escapement Reports:
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