



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

2017 FRASER SALMON UPDATE

By: *Pete Nicklin and Aidan Fisher (Neill), FRAFS Biologists*

To date, Fraser sockeye has not returned anywhere near where we had hoped. As everyone knows at this point all management groups have been managed within the LAER, meaning extremely restricted fishing. It looks as though the Fraser sockeye migration is winding down, as Late run sockeye become more present within the stock ID samples. There is still a small amount of sockeye en route to the Fraser, but of the total migration represents a small portion.

The Fraser pink salmon picture has not improved since last week, and is continuing to hold at lower daily estimates, past marine test fisheries, similar to last week, however, estimates at Mission picked up a bit this week. There is still some time for marine test fisheries to pick up, and a second run of pinks has been observed previously in the Fraser pink cycles. There has been one day of larger catches in the marine test fisheries, but this signal will need to continue to grow over the weekend to make a difference regarding run-size. Regardless of the run-size, there is a 15% TAC for Fraser pinks of the in-season adopted run-size of 4.8 million. This TAC must take into account all fisheries for Fraser pinks, including test fisheries, FSC harvest and recreational harvest, before commercial fisheries commence. Over the next week there will be more discussion around commercial fisheries for pinks, and we will have to watch for the impact on Fraser sockeye from commercial pink fisheries.

Most Fraser sockeye stocks continue to track around the P25 to P10 forecast, which means restricted FSC fishing for First Nations, and no commercial or recreational directed Fraser sockeye fisheries. Summer Run stocks continue to be the dominant management group identified in marine and in-river test fisheries with Lates starting to show up in major proportions. Model estimates indicate a return in the range of the P10 forecast abundance.

The small US pink directed fishery in the marine approach has continued through last week, and is expected to continue. This fishery is limited, and takes a small amount of Fraser pinks and sockeye. These fisheries are approved by the Fraser Panel and are well within the Treaty sharing arrangement for pinks.

Sockeye Management Group	Pre-Season Planning Forecast (P50)	In-Season Adopted Run Size	Area 20 Timing (for 50% of run)
Early Stuart	99,000	46,000	July 3
Early Summer	343,000	150,000	Aug 2
Summer	3,407,000	1,000,000	Aug 11
Lates	583,000	247,000	Aug 18
TOTAL	4,432,000	N/A (too early for run size update)	N/A

On the environmental conditions side of things, current Fraser River temperatures are continuing to climb and are forecasted to exceed the previous maximum observed in the historic range. Discharge Flows have stayed low, and are tracking near the lowest discharge in the range from 1981-2010. This is good for upstream migration, although very low flows can also be a hindrance to migration in some areas if they continue to drop. The downside to the low flow is the river is more sensitive to daily air temperatures and river temperature can change quickly.

Early Stuarts

The last of the Early Stuarts arrived on the spawning grounds, and the management of this stock group is in the enumeration phase, which is wrapping up on the spawning grounds. The accounted run to date is almost 46,600, and no changes will be made to the in-season adopted run size of 46,000.

Early Summers

The Early Summers group was upgraded to 150,000 on August 18th. The Panel acknowledged that Pitt sockeye are the dominant stock to date, and now the Early Summer aggregate has exceeded the previously adopted in-season run-size of 125,000. The Pitt sockeye leave the mainstem Fraser downstream from Mission, which means there are very few Early Summer sockeye expected to return to the Thompson system and the Upper Fraser. At this current run size there is no international TAC available.

Summer Run

Summers were forecasted at 3,407,000 (P50). The Panel adopted a 1,000,000 Summer run size with an August 11th run timing through Area 20. The Chilko sockeye return was the key driver of pre-season expectations, and all indications from the data indicate an overall return of less than the P10 forecast abundance (model estimate of 511,000). The lone bright spot (and it's only a relatively bright spot), is the Quesnel run estimated at 132,000 compared to a P50 forecast of 192,000 (a return somewhere between the P25 and P50 forecast). There is no TAC at this run size abundance, and First Nations fisheries will be managed under the LAER.

Late Sockeye

Lates are forecasted at 583,000 (P50). The Panel kept a preliminary in-season run size of 247,000 with a run-timing peak of August 18th. Late run sockeye are well into the marine migration and into the Fraser, and are not meeting the P50 forecast. There is no TAC at this run size, and the Late run sockeye will be managed under the LAER of 20% instead of 10% like the other 3 aggregates.

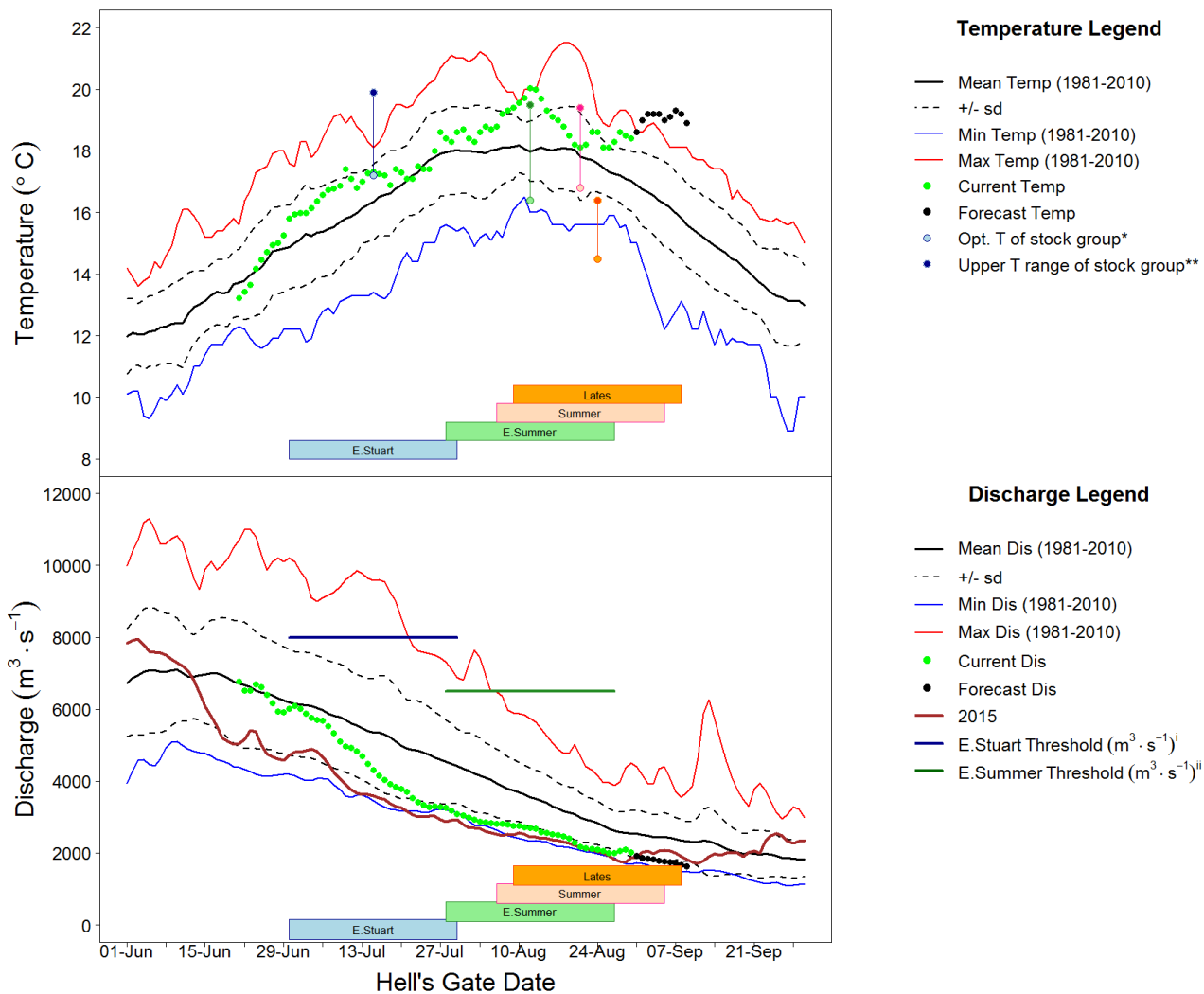
Fraser River Conditions

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 31st, 2017):



The Fraser River water temperature at Hope is currently 18.4 degrees Celsius (1.4 degrees Celsius above average for this time of year), and is forecast to increase to 19.0 degrees Celsius by September 5th. The Fraser River discharge continues to track near

historic low levels for this time of year with a flow of 2,025 m³/sec at the Qualark water station on August 31st (20% below average for this time of year). The discharge is predicted to continue tracking below average, with a forecast discharge of 1,767 m³/s by September 5th.

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>

DFO staff have distributed 9 Fraser Salmon Bulletins, and we strongly encourage people to review and comment on the DFO bulletin if time and resources permit. Contact your local DFO Resource Manager for a copy, and addition to the distribution list.

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 25th, 2017) and the Fraser River Panel meeting from the same day.

There has been a bump of sockeye and pink in the marine area, due to higher test catches in the marine approach on August 29th. Due to the accounting system, this higher catch affects the previous and following days in the model. Hopefully we will see the test catches reflect an increase in-river during next week. Although in the marine approach the test sets have dropped off again. Compared to the time series of Fraser pink migration, there is still some time for the pink run to pick up and come in closer to pre-season forecast, however daily catch in the marine test fisheries will need to pick up soon for this to occur.

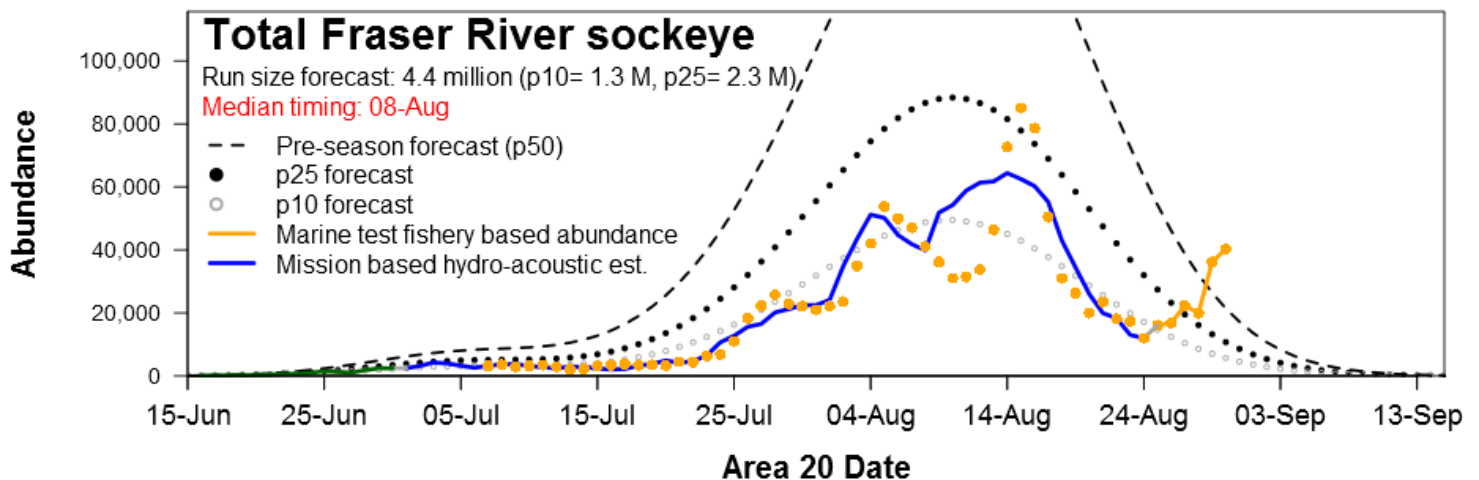
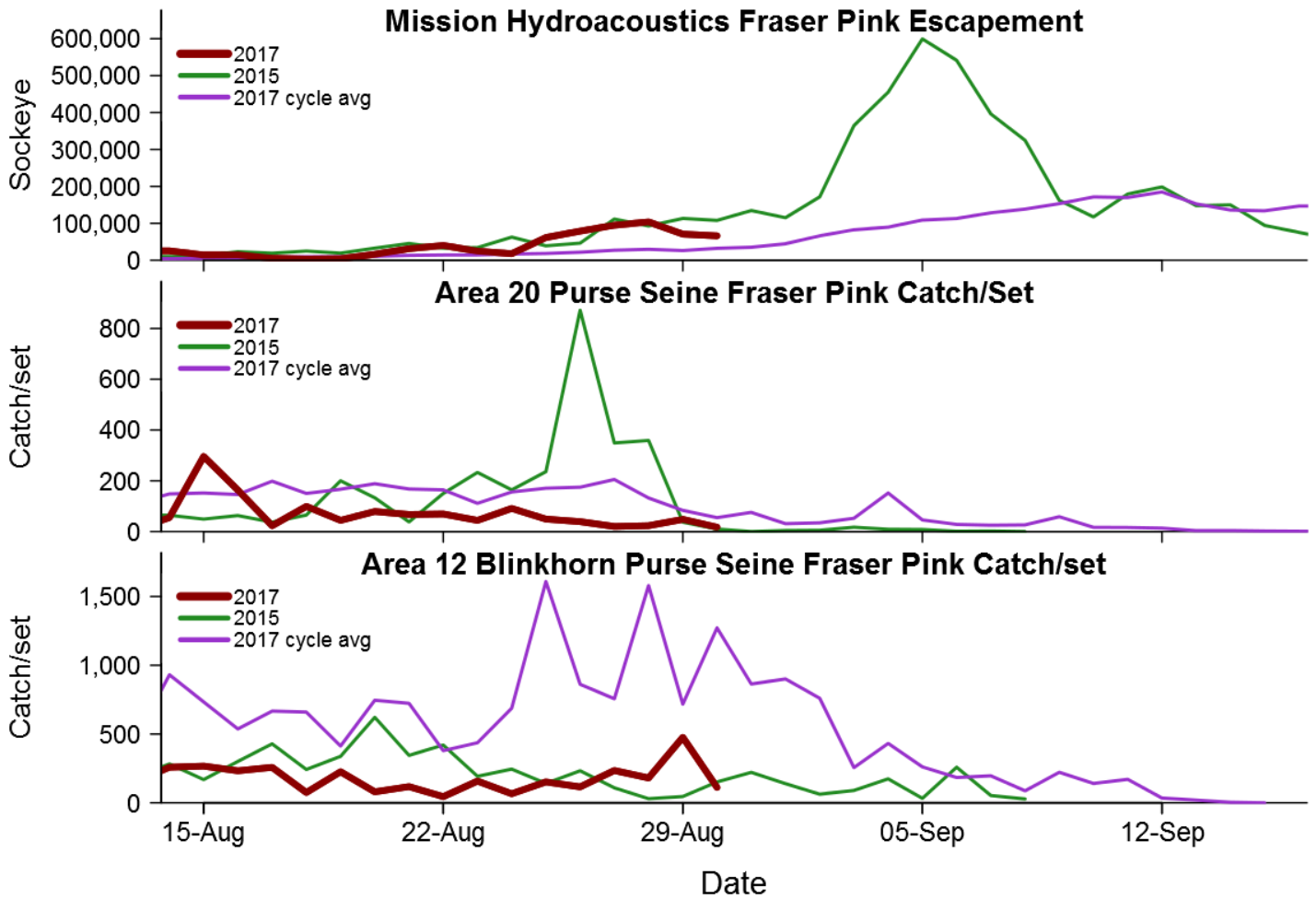
The Fraser River Panel had no other recommendations on adjusting in-season run sizes for any management group. There is no TAC at these abundances, and First Nations fisheries will continue to be managed under the LAER (Low Abundance Exploitation Rate). FSC fisheries throughout the marine approach and in-river, are being managed to a 10% LAER for Early Stuart, Early Summer, and Summers, while the Late aggregate will be managed to a 20% LAER. There is no explicit allocation of the LAER between groups (Marine, Lower Fraser, BC Interior), but DFO is using a proportional communal licence amount method to guide fisheries management by dividing the LAER for operational purposes.

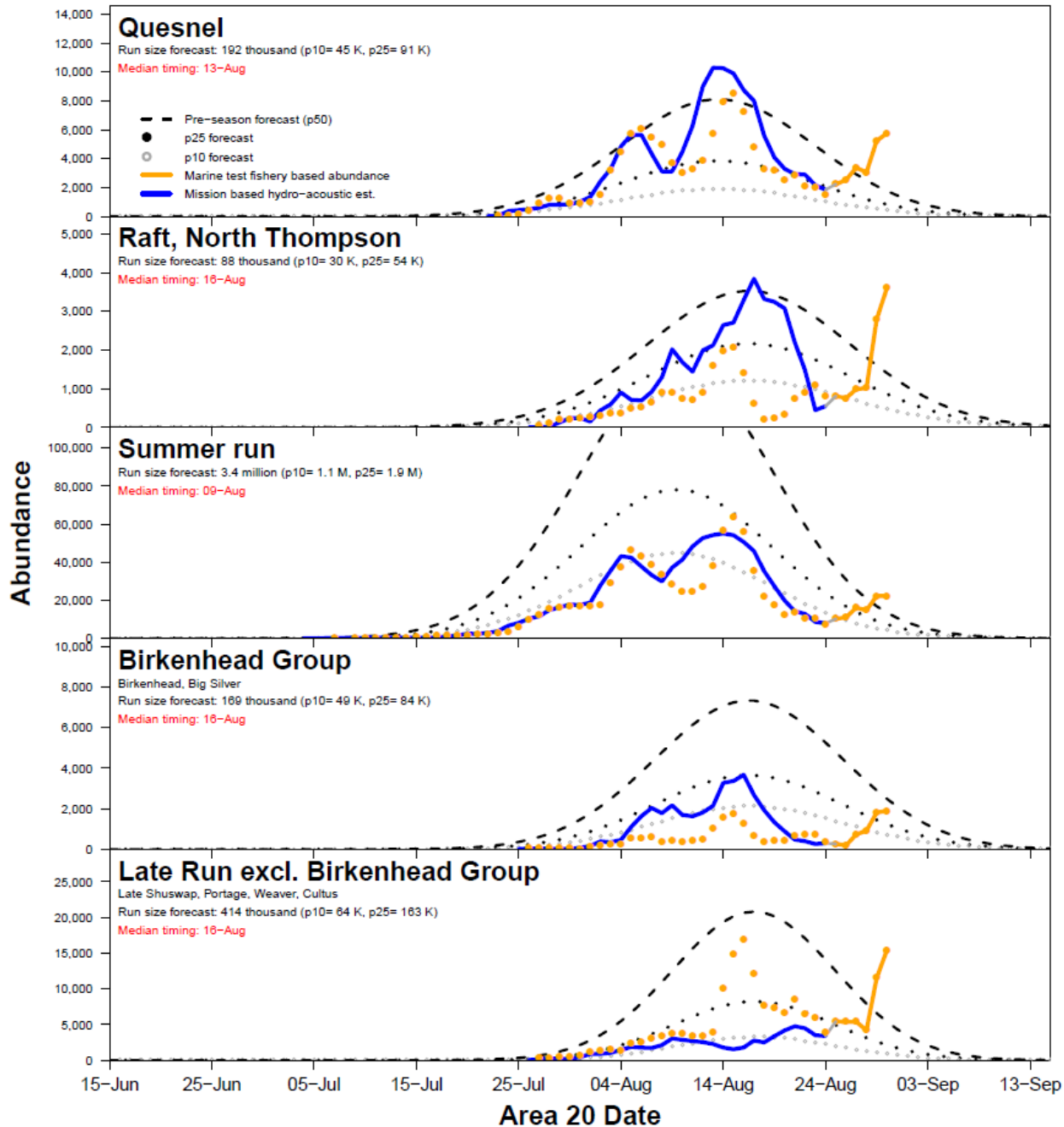
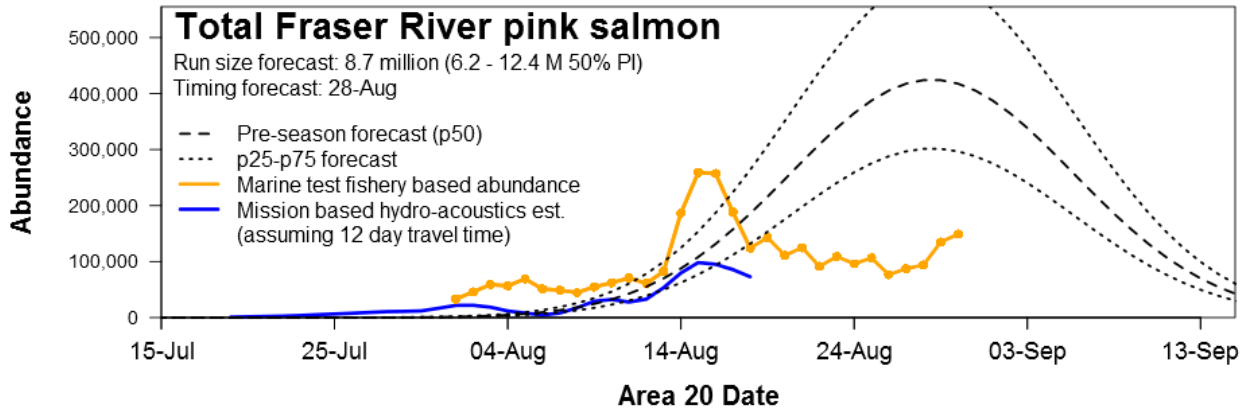
A total of 1,240,200 Fraser sockeye has been accounted-to-date past Mission, comprised of almost 46,400 Early Stuart sockeye, 160,600 Early Summer run sockeye, 940,200 Summers, 93,000 Lates and 820,000 Fraser pinks. The abundance of sockeye catch in marine test fisheries is tapering off, as well as in-river test fishery catch. Stock identification in the marine area shows the Summer Run continuing to be present, but there is fair amount of Late run sockeye present.

The Panel adopted a Fraser pink abundance in-season run size of 4.8 million, but remains tracking below the P25 forecast. The early bump of pink migration did not materialize to persistent larger escapements, and is now looking like it may have been the peak abundance. The Mission hydroacoustic program is no longer producing estimates for sockeye. Daily passage is now estimated as the catch at the Whonnock test fishery put through an expansion factor. The passage of Pink salmon is estimated by deduction of sockeye and a long-term average chinook migration from the total salmon estimate at Mission from the HydroAcoustic. This procedure could lead to less accurate daily passage numbers past Mission.

There has been a US Pink fishery for Treaty Tribal fishers and an All Citizen's fishery. These fishers are using reef nets, seines and gillnets to harvest pinks, with incidental catch of sockeye. There has not been consistent effort in this fishery, and total catch has been low to date.

Test fishing graphs (sockeye and pink salmon), Mission hydro-acoustics and Daily Migration information from the PSC distribution package are below, please note that some of the daily migration run timing curves show P10, P25, and P50, make sure to check the legend on each graph to read them accurately:

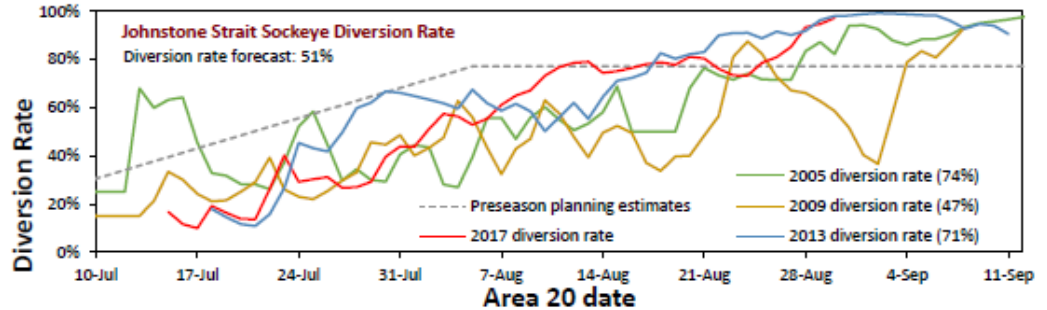




We've included the Johnstone Strait diversion graphs (following) to illustrate the pink salmon migration pattern. Migration through Johnstone Strait has come down to near preseason forecast amounts, in the 40-50% range over the past few days.

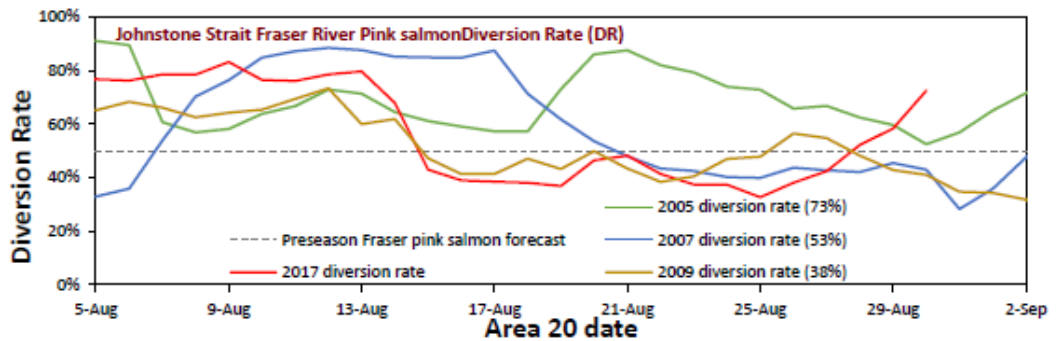
2017 Fraser River sockeye diversion rates through Johnstone Strait

	5-day average
Diversion rate	97%
Gillnet	#N/A
Purse Seine	97%



2017 Fraser River Pink salmon diversion rates through Johnstone Strait

	5-day average
Total pink salmon	72%
Fraser pink salmon	72%



The next Fraser River Panel meeting is scheduled for noon on Tuesday September 5th at 11:00am.

Weekly Technical Updates with FRAFS Biologist Mike Staley

Thursday afternoons at 4:00pm

Beginning Thursday, July 13th at 4:00 pm, FRAFS Biologist Mike Staley will host weekly in-season teleconferences for First Nations. Mike will provide updates on current discussions from both the Pacific Salmon Commission Fraser River Panel (FRP) and FRP Technical Committee. Participants are welcome to ask questions.

Phone in:

Tel: 1-866-512-0904 • Participant code: 4954972#

GoToMeeting Link:

<https://global.gotomeeting.com/join/558627029>

PSC FRASER PANEL SCHEDULE:

July 11, 14, 18, 21, 25*, 28,
 August 1*, 4, 8*, 11, 15*, 18, 22*, 25, 28,
 September 1, 5, 8

Most dates above are calls, start time 11:00am. Dates marked in red are in-person meetings and begin at 10:30am (except the 28th which starts at noon)

The PSC provides a listen-in line for interested First Nations:

Canada 1-888-299-2873 • USA: 1-888-585-9008

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

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/publications/fraser-panel-in-season-information/fraser-river-panel-regulatory-announcements/>

Fraser River Mission Escapement Reports: <http://www.psc.org/publications/fraser-panel-in-season-information/fish-passage-past-the-psc-hydroacoustic-counting-station-near-mission-bc/>

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>

For more information contact Pete Nicklin and/or Aidan Fisher (Neill) by email: pnicklin@telus.net, Aidan.Neill@lffa.ca