



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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>

2017 FRASER SALMON UPDATE

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

Over the last few days there are a few more fish showing up in the marine test fisheries. Overall total Fraser sockeye migration trend is similar to last week. Total migration of Fraser sockeye is tracking between p10 and p25. This is turning out to be another difficult year for Fraser sockeye, and there have been extreme limitations put on the FSC fisheries throughout the river and marine approach areas.

This week DFO has begun to open the LAER (Low Abundance Exploitation Rate) framework and will be licencing some FSC fisheries to take Fraser sockeye. The goal is to allow FSC harvest of salmon (chinook, pink, chum, sockeye), while staying within the LAER for Fraser sockeye. DFO is considering these FSC harvest plans on a case-by-case basis in an attempt to manage the fisheries to stay within the LAER for Fraser sockeye. There has been a descriptive document from DFO circulated (August 16, 2017) that outlines their considerations on FSC harvest plans.

The Fraser pink salmon situation is similar to last week, marine test fisheries have seen a brief bump in catch but it is still too early to make any predictions on in-season run size (expected peak migration is August 28th). Issues around differentiation between sockeye and pink at the hydroacoustic sites persist because of the low sockeye escapement. In addition, anecdotal reports of smaller than average sockeye could add to uncertainty around the daily pink and sockeye migration. To date, pinks are starting off relatively strong in the marine test fisheries, but we are still very early in the migration to make any in-season decisions regarding the pink run.

Most Fraser sockeye stocks are tracking 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, but model estimates indicate a return somewhere between the P10 and P25 forecast abundance.

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	1,250,000	Aug 14
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 slightly above average but are starting to decline after temperatures peaked last week. 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. However at low flow the river is more sensitive to daily air temperatures, which is forecasted to decrease over the next few days.

Early Stuarts

The last of the Early Stuarts have moved onto the spawning ground areas and the escapement enumeration program is nearing completion. The accounted run to date is almost 46,600, and no changes were made to the in-season adopted run size of 46,000 at the Friday August 11th Fraser River Panel meeting.

Early Summers

The Early Summer management group was upgraded to 150,000 on August 18th. The Panel acknowledged that Pitt sockeye are the dominant stock to date in this group, 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 kept the in-season run size estimate of 1,250,000 with August 14th Area 20 timing at today's meeting, although there was a recommendation by PSC staff to reduce the in-season run size to 1,000,000. Summer run sockeye remain dominant in the test fisheries. 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 adopted a preliminary in-season run size of 247,000 (P25)** with a run-timing peak of August 18th. Late run sockeye have started to show up, and are not meeting the P50 forecast, and the Panel felt it was prudent to send the signal of lower than expected run size for this group. There is no TAC at this run size, and the Late run sockeye will be managed under the LAER.

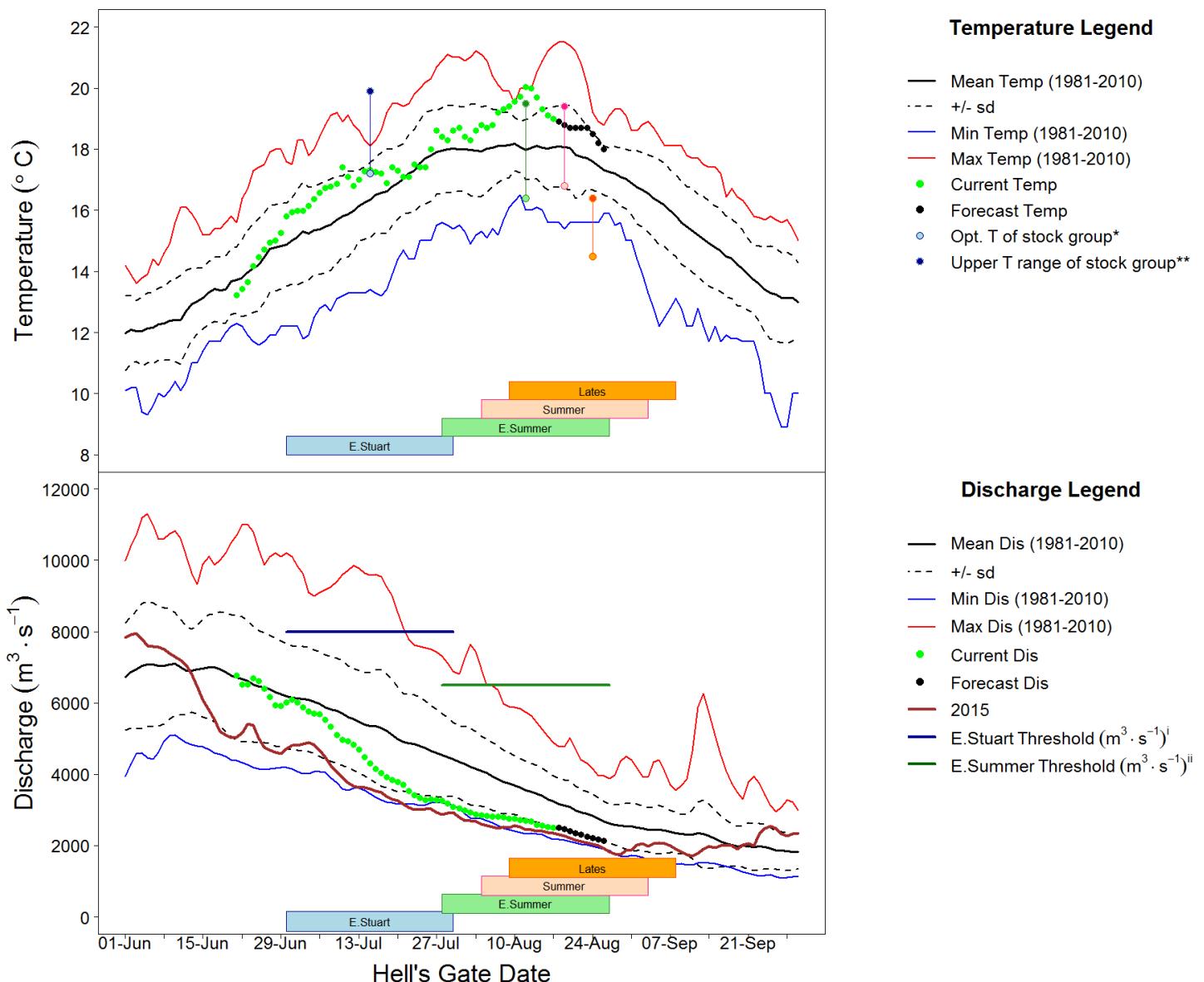
Fraser River Conditions

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 17th, 2017):



The Fraser River water temperature at Hope is currently 19.0 degrees Celsius (0.9 degrees Celsius above average for this time of year), and is forecast to decrease to 18.7 degrees Celsius by August 23rd. The Fraser River discharge continues to track near historic low levels for this time of year with a flow of 2,505 m^3/sec at the Qualark water station on August 17th (23% below

average for this time of year). The discharge is predicted to continue tracking below average, with a forecast discharge of 2,257 m³/s on August 23rd.

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 8 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

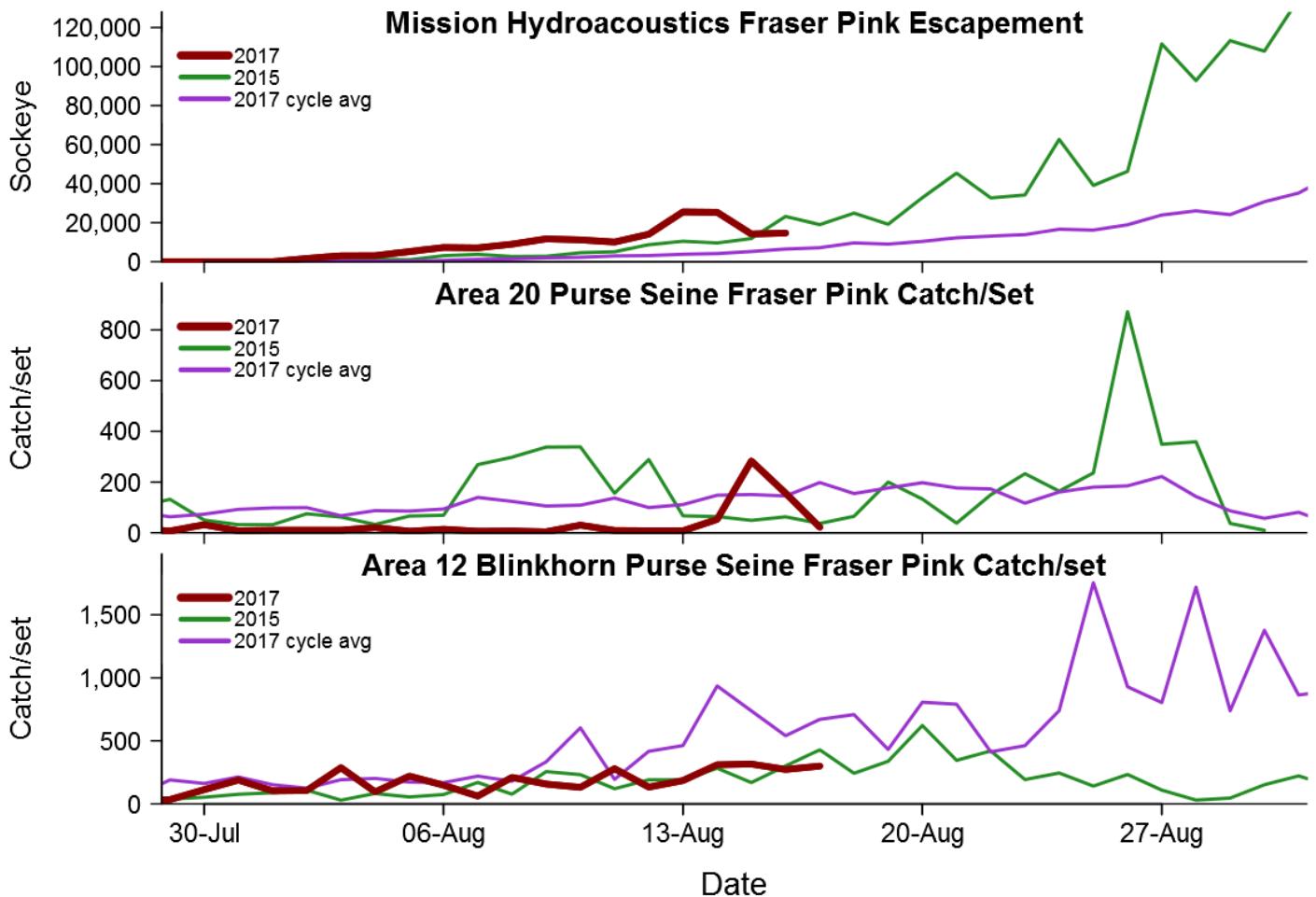
The Pacific Salmon Commission (PSC) distributes the Fraser River Panel meeting agenda and technical information for Panel members and observers to the process. The following information is a summary of key information from that document (August 18th, 2017) and the Fraser River Panel meeting from the same day.

The Fraser River Panel previously adopted an in-season run size for the Early Summer run sockeye aggregate at 125,000 on Tuesday August 8th, it was noted today that there are more than 125,000 Early Summers accounted for in catch and escapement and the Panel **increased the in-season run size of Early Summers to 150,000**. Most of the abundance is present in the Pitt system, which have effectively migrated through all fisheries on Pitt sockeye. At Friday's Panel meeting this week, the Panel kept an in-season run size of 1,250,000 for Summer run which is between the P10 and P25 forecast abundance, despite recommendations from PSC staff to reduce the Summer run to 1,000,000. There is no TAC at these abundances, and First Nations fisheries will be managed under the LAER (Low Abundance Exploitation Rate – 10%).

A total of 707,600 Fraser sockeye have been accounted-to-date past Mission, comprised of almost 46,400 Early Stuart sockeye, 128,700 Early Summer run sockeye, 495,200 Summers, 37,300 Lates and 180,800 Fraser pinks. The marine test fisheries (for sockeye) increased earlier this week, but have tapered off again and are still tracking well below pre-season expectations. Stock identification in the marine area shows the Summer Run continuing to dominate the recent samples.

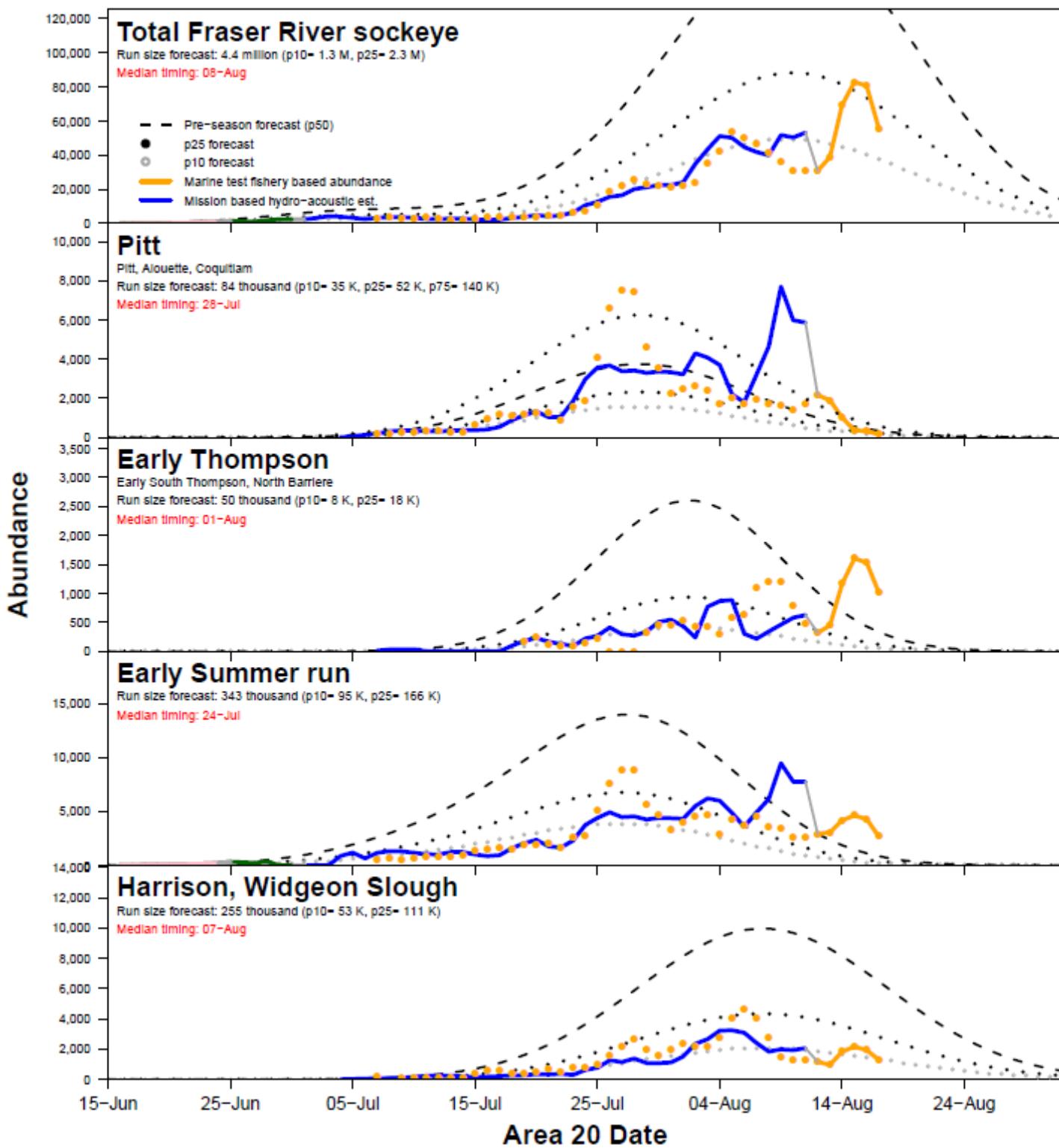
Fraser pink abundance is still uncertain, as pinks have only started to show up recently. To date marine test fisheries have started to track above the P50 forecast for pinks, but this is still very early in the pink migration. Hopefully we continue to see strong pink abundance in the next few days to continue this trend.

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 as well as P25, P50 and P75, make sure to check the legend on each graph to read them accurately:



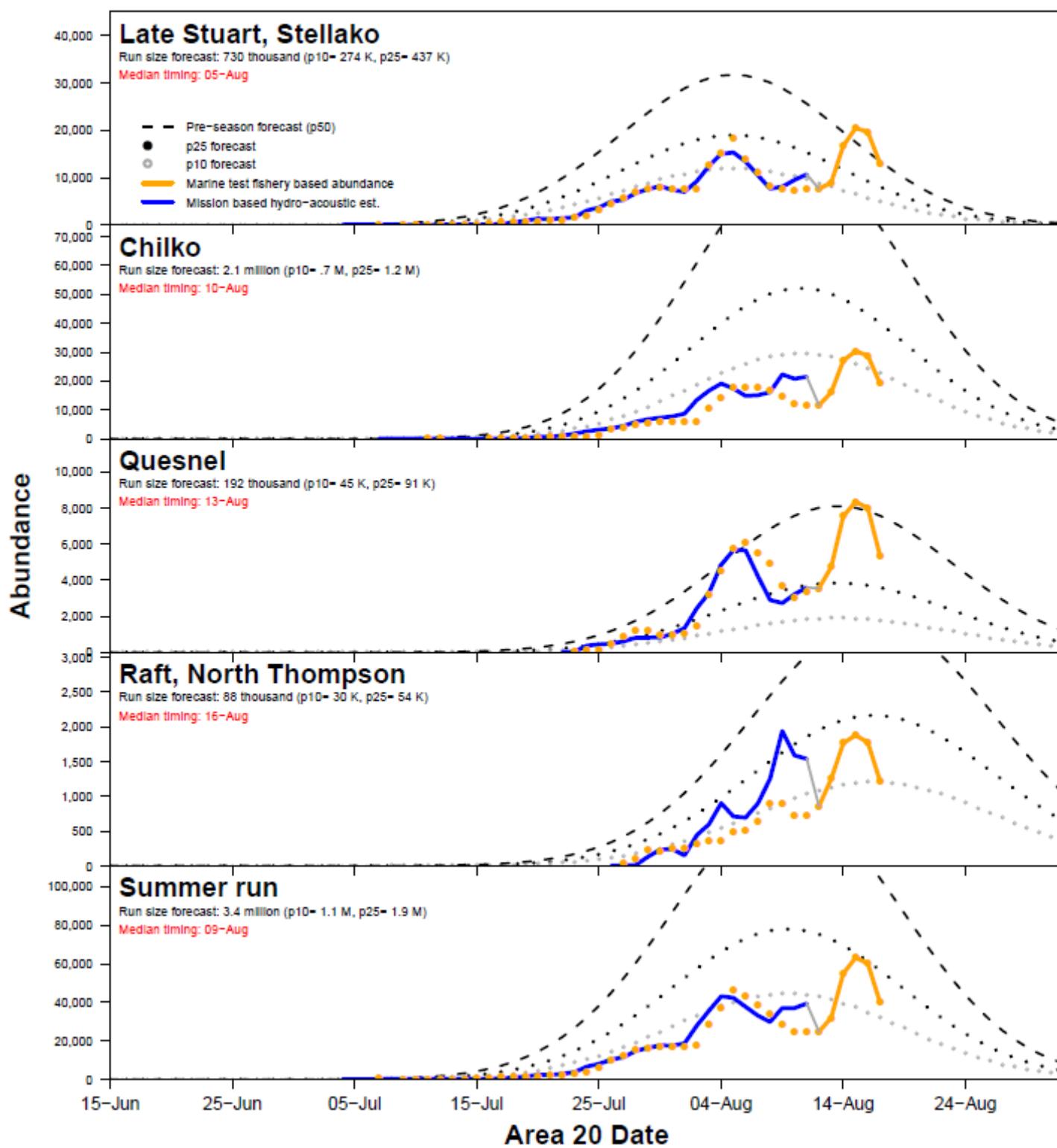
2017 Fraser River sockeye daily migration abundance

Using median timing estimates



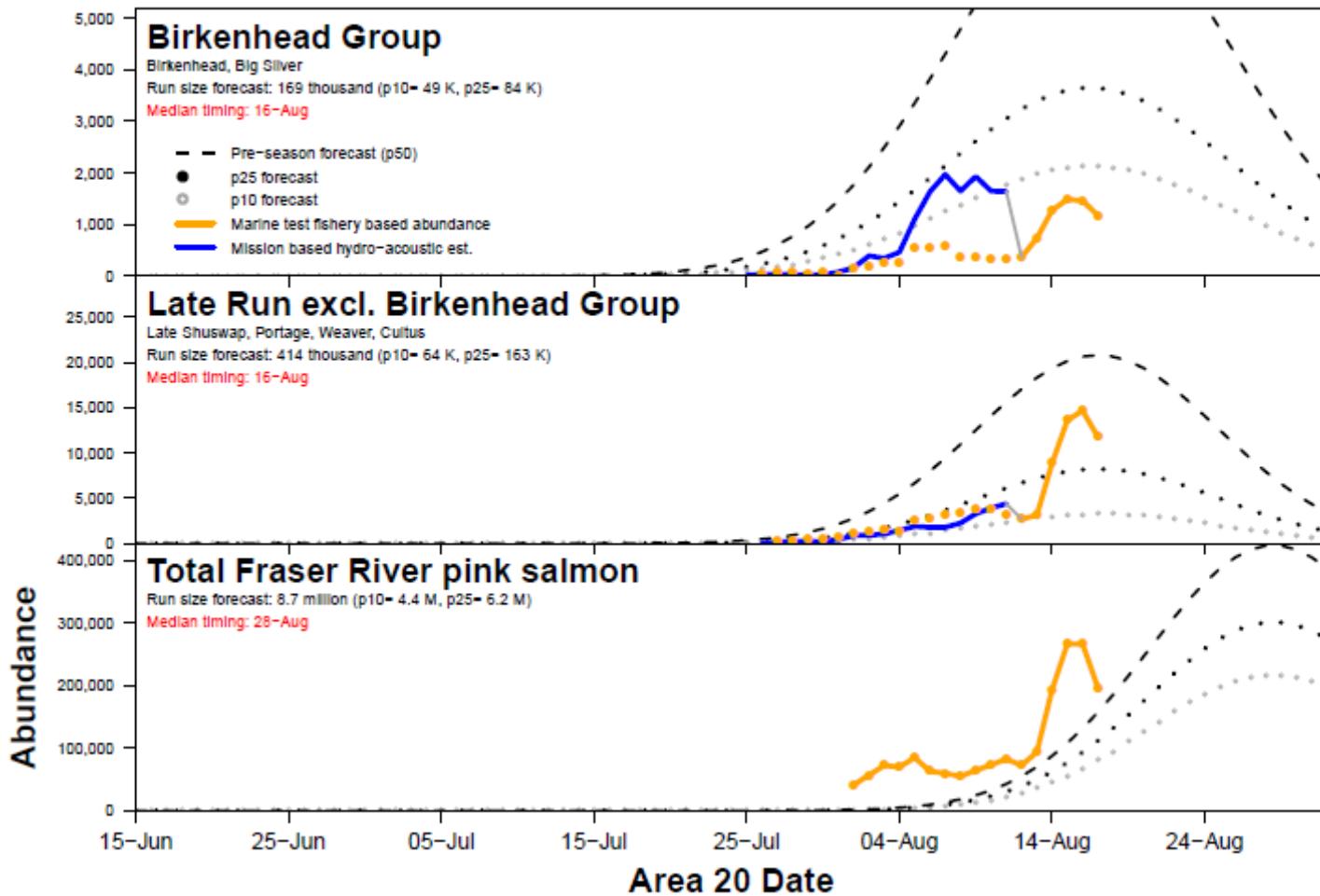
Date: 2017-08-18, Time: 09:12 CM

2017 Fraser River sockeye daily migration abundance Using median timing estimates



Date: 2017-08-18, Time: 09:12 CM

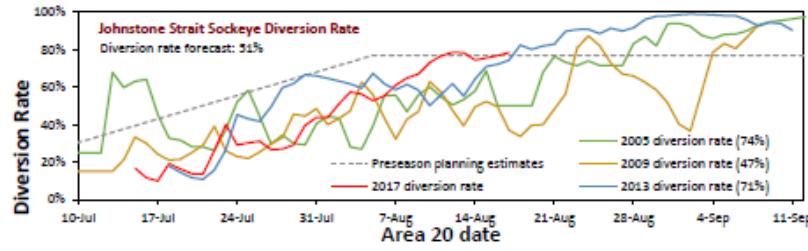
2017 Fraser River sockeye daily migration abundance Using median timing estimates



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.

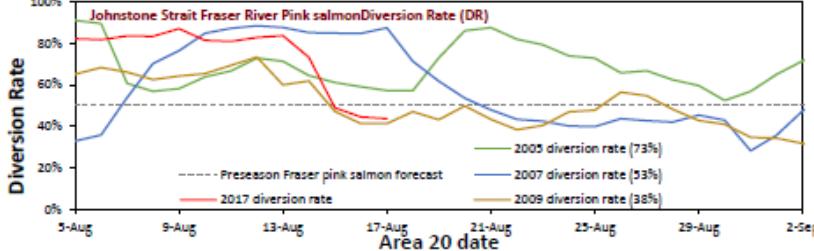
2017 Fraser River sockeye diversion rates through Johnstone Strait

	5-day average
Diversion rate	78%
Gillnet	#N/A
Purse Seine	80%



2017 Fraser River Pink salmon diversion rates through Johnstone Strait

	5-day-average
Total pink salmon	42%
Fraser pink salmon	44%



The next Fraser River Panel meeting is scheduled for 10:30AM Tuesday August 22nd.

PSC FRASER PANEL SCHEDULE:

**July 11, 14, 18, 21, 25*, 28,
August 1*, 4, 8*, 11, 15*, 18, 22*, 25, 29,
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.

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

**Canada 1-888-299-2873 • USA: 1-888-585-9008
Conference ID: 902-802-337**

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