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No. 1

WEEKLY REPORT

July 12, 2024

The Fraser River Panel (Panel) of the Pacific Salmon Commission adopted the 2024 Fraser River Panel Management Plan for the 2024 Fraser River sockeye salmon fisheries in Panel Area waters. The Panel met today to review in-season assessment data on Fraser River sockeye salmon.

Pre-season Expectations

Fisheries and Oceans Canada (DFO) provided forecasts of Fraser River sockeye salmon abundance to the Panel, as well as a formula for calculating sockeye spawning escapement targets at different run sizes. The sockeye run size forecast for 2024 is the lowest forecast on record. This low forecast is due to the low number of sockeye that returned in 2020 and the impact of the Big Bar landslide in the previous year, in particular for early migrating stocks such as Early Stuart and Bowron. Fraser River sockeye salmon forecasts for 2024 remain uncertain due to the substantial variability in annual survival rates and uncertainty about changes in productivity, especially for Chilliwack and Harrison stocks. The total Fraser sockeye salmon median forecast (50% probability level) is 567,000 fish, which is well below the cycle average. To put the forecast uncertainty into context, there is a one in four chance that the actual number of returning sockeye will be less than 299,000 fish (25% probability level forecast) and there is a one in four chance that the actual number of returning sockeye will be greater than 1,121,000 fish (75% probability forecast). For pre-season planning purposes, the Panel used the median Fraser River sockeye forecast abundance (equal chance that actual return will be higher or lower) for all management groups.

The Early Stuart sockeye return forecast at the 50% probability level is 180 fish (ranges from 100 to 300 fish at the 25% and 75% probability levels, respectively). The forecast for Early Summer-run sockeye at the 50% probability level is 159,000 fish (ranges from 93,000 to 281,000 fish at the 25% and 75% probability levels, respectively), with Nadina, Gates and Chilliwack sockeye comprising nearly 79% of the total Early Summer return. The Summer-run sockeye return forecast at the 50% probability level is 379,000 fish (ranges from 192,000 to 774,000 fish at the 25% and 75% probability levels, respectively), with Chilko and Harrison sockeye expected to contribute nearly 74% to the total Summer-run sockeye return. The Late-run sockeye return forecast at the 50% probability level is 29,000 fish (ranges from 15,000 to 66,000 fish at the 25% and 75% probability levels, respectively), with Birkenhead sockeye expected to comprise 83% of the total Late-run return. Of note, 10 of the 27 forecasted stocks have a median forecast equal to or less than 1,000 sockeye.

Fisheries and Oceans Canada (DFO) also provided marine migration timing forecasts for Early Stuart and Chilko sockeye derived from models with environmental variables that play a role in sockeye migration behavior. The median timing of Early Stuart sockeye through Area 20 is July 08 which is based on a model averaging approach, using the top 10 models ranked based on a cross validation over the last 15 years. The median timing forecast for Chilko sockeye through Area 20 is August 03 and is based on the top 10 models for 2024 cycle line years. The forecast proportion of Fraser River sockeye salmon diverting their migration through Johnstone Strait is 33%.

Pre-season expected abundance-timing curves for Fraser River sockeye salmon (Figure 1) stock-groups are shown below. In-season marine abundance and timing for sockeye salmon may deviate from the pre-season expectation as in-season data are collected and analyzed.

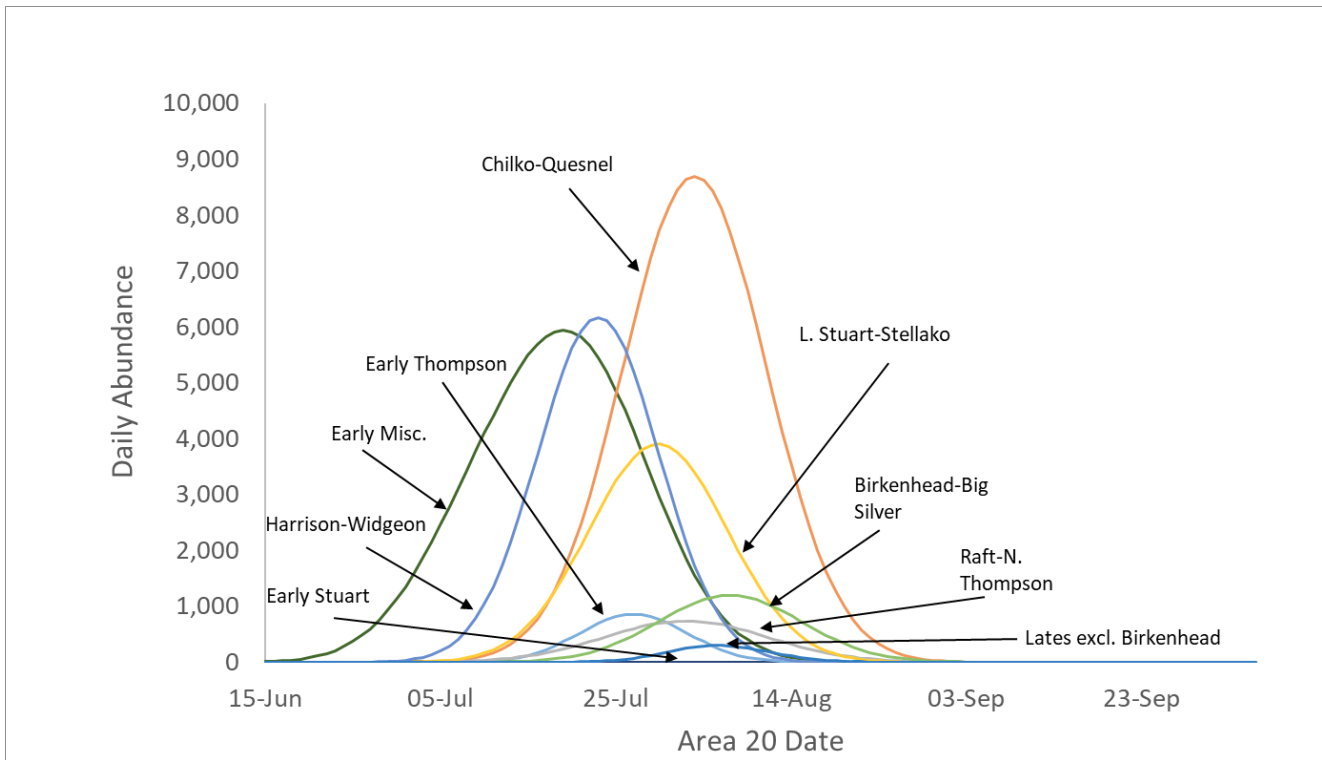


Figure 1. Expected abundance timing curves for Fraser River sockeye salmon.

Migration conditions in 2024 are expected to be challenging. The upper Fraser River is the main driver for the discharge at Hope during the mid-summer period. As of June 1 the snowpack was extremely low throughout the watershed. Fraser River discharge levels are forecast to be below average during the sockeye migration period. Air and water temperatures are forecast to be above average this summer and the expected low flows will decrease the water temperature buffering capacity to hot weather. Following the mitigation work that was undertaken to mitigate the impact of the 2019 Big Bar rockslide north of Lillooet, B.C., and low Fraser River discharge levels, it is not anticipated that stocks will encounter migration challenges at Big Bar in 2024.

Management Constraints and Expectations

The Fraser River sockeye salmon forecast of the different management groups has been a dominant factor in the development of pre-season fishing plans for 2024. The median forecasts for all sockeye management groups (Early Stuart, Early Summer, Summer and Late run) are small enough for Canada’s escapement plan to trigger the implementation of a low abundance exploitation rate (LAER) for these groups, which limits direct sockeye harvest opportunities. Under these conditions, the Fraser River Panel will prioritize conservation and achieving Fraser River sockeye salmon escapement goals. Given the constraints imposed by low returns to all management groups at the median forecast and the potential for adverse Fraser River conditions, pre-season plans were developed which indicate that both Canada and the United States are unlikely to have harvest opportunities.

If in-season conditions are consistent with pre-season expectations, there will be no sockeye salmon fisheries this summer.

Test fishing and stock identification information

Gillnet test fishing began in the Fraser River on June 28 in Area 29-16 (Whonnock) and July 8 in Area 29-17 (Brownsville Bar). Thus far, catches have been low and dominated by Early Summer run sockeye based on scale analysis ($n=18$). The marine gill net test fishery will not be operational this season. The marine purse seine test fishery is scheduled to start in Area 12 and Area 20 on July 14 and 15, respectively. Hydroacoustic sonar estimates commenced July 5 at Mission. The Qualark gillnet test fishery is scheduled to start July 18. To date, observers at Hells Gate have counted a few sockeye salmon into the fishways.

In-season assessment information

Due to the extremely low forecast for Early Stuart sockeye, 180 fish, an in-season estimate will be challenging. The estimated escapement plus catch of Early Summer-run sockeye through July 11 is 22,200. At this time, only the early-timed Early Summer-run component is represented in the test fishing catches (Chilliwack, Pitt, Nadina/Bowron). Early Summer-run sockeye run-size estimates should be available in late July after their peak migration through marine areas.

Migration conditions in the Fraser River

On July 11, the Fraser River water discharge at Hope was about 4,024 cms, which is below mean discharge levels and approximately 29% lower than average for this date. The temperature of the Fraser River at Hope on July 11 was 18.9°C, which is 2.7°C higher than average for this date. DFO's Environmental Watch program projects that river temperature will increase, while discharge is forecast to decrease to about 3,799 cms over the next 10 days. Current reports from Big Bar indicate no concern with salmon passage, which thus far has consisted solely of Chinook salmon.

Regulatory Announcements & Resources

The Panel announced the following regulations for commercial salmon fisheries in Panel Area waters:

CANADIAN FRASER RIVER PANEL AREA WATERS:

Remain closed to commercial salmon fishing.

UNITED STATES FRASER RIVER PANEL AREA WATERS:

Remain closed to commercial salmon fishing.

The next in-season meeting of the Panel is scheduled to occur on July 16. Weekly reports in this series will be provided by the Panel through the Commission every Friday during the in-season management period to inform those interested in the progress of the Fraser River sockeye salmon run. Weekly reports and regulatory announcements can be obtained via <http://www.psc.org/publications/fraser-panel-in-season-information> or by subscribing to our eNews <http://tinyurl.com/PSCeNews>. Regulations and resources for fishing schedules, test fishing catch and DFO's environmental watch program can be found in Table 1.

Table 1. Regulations & Resources

Fishing Schedule Contacts/Resources	Phone Number/ Website Links
United States fishing schedules (Treaty Tribes)	1-800-562-6142
United States fishing schedules (All Citizen)	1-800-662-9825
Canadian commercial fishing regulations (from the lower B.C. mainland)	604-666-2828
Canadian commercial fishing regulations (from outside the lower B.C. mainland)	1-866-431-3474
PSC Daily Test Fishing Catch (recorded message or website)	604-666-8200 Test Fishing Results - Pacific Salmon Commission (psc.org)
DFO's Environmental Watch program	http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html

Note: For species other than sockeye salmon consult the appropriate regulatory agency regarding fisheries regulations in the Fraser River Panel Management Area.

Contacts

United States: Mickey Agha, Chair, Fraser River Panel

Canada: Adam Keizer, Vice-Chair, Fraser River Panel

2024 Run status of Fraser sockeye and pink salmon

Date: Jul. 12, 2024

Week of: Jul. 7 - Jul. 13, 2024	Sockeye				
	Management Group				Total Fraser
	E.Stuart	E.Summer	Summer	Late	
Mission passage (includes Pitt, Alouette, Coquitlam) ¹	0	22,200	0	0	22,200
Catch downstream of Mission	0	0	0	0	0
Accounted run-to-date	0	22,200	0	0	22,200
Run size adopted in-season ¹	na	na	na	na	na
Run size forecasted pre-season	180	159,000	379,000	29,000	567,180
Area 20 timing adopted in-season	na	na	na	na	
Area 20 timing expected pre-season	7-Jul	19-Jul	30-Jul	7-Aug	

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.

2024 Catch-to-date by fishery

Date: Jul. 12, 2024

Week of: Jul. 7 - Jul. 13, 2024		Sockeye	
		Total	Fraser
Canada		0	0
Commercial		0	0
	B Purse Seine	0	0
	D Gillnet	0	0
	E Gillnet	0	0
	F Troll	0	0
	G Troll	0	0
	H Troll	0	0
First Nations		0	0
	Food, Social & Ceremonial (FSC)	0	0
	Marine	0	0
	Fraser R.	0	0
	Economic Opportunity (EO) & Demonstration (Demo)	0	0
	Marine	0	0
	Fraser R.	0	0
Recreational		0	0
	Marine	0	0
	Fraser R.	0	0
Charter (Albion gillnet test fishery)		0	0
Other**		0	0
United States		0	0
Commercial		0	0
	Treaty Tribes (TRB)	0	0
	All Citizen (AC)	0	0
Treaty Tribes Ceremonial & Subsistence (C&S)		0	0
Other**		0	0
All Citizen Recreational		0	0
Alaska *		na	na
Panel-approved Test Fisheries		38	38
Panel Waters		38	38
Non-Panel Waters		0	0
Total		38	38

* Alaska catch is processed post-season and so is unavailable in-season.

** May include unauthorized directed retention or unauthorized bycatch retention in fisheries directed at other species