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No. 9

WEEKLY REPORT

September 3, 2021

The Fraser River Panel (Panel) met today to review assessment data on Fraser River sockeye and pink salmon.

Test fishing and stock identification information

The purse seine test fisheries were extended for Area 12 and Area 20 to September 3 and 4, respectively. Purse seine test fishery catches for sockeye salmon in Area 12 and 20 have been variable over the last week, but overall are declining. The majority of the sockeye catch is occurring in Area 12, indicating a shift to more Fraser River sockeye migrating through the Johnstone Strait route rather than through Juan de Fuca Strait, a behavior typically observed for later timed stocks.

DNA analysis of a sockeye sample recently collected from the Johnstone Strait, Area 12 purse seine test fishery, indicated Fraser River sockeye contributions of 3% Early Summer, 77% Summer and 20% Late run. These stock proportions indicate some variability in Summer run and Late run proportions in the marine area. Overall, Fraser sockeye are starting to decline in the marine area.

Pink salmon catches in marine area purse seine test fisheries appear to be as high or higher than in recent pink salmon years, both in Area 12 and Area 20. A recent DNA sample from the Area 20 test fishery indicates that 47% of the pink salmon encountered are of Fraser River origin, 36% are from Puget Sound, and 17% are from South Coast stocks.

The estimated diversion rate of sockeye salmon through Johnstone Strait has increased over the last week to 73% which is above the pre-season forecast of 35%. Diversion rate of pink salmon is 20% based on recent purse seine test fishery catches in the two approach areas which is well below the pre-season forecast of 50%.

Assessment results

Fraser River Sockeye Salmon

The estimated escapement plus catch of Early Summer-run sockeye through September 2 is 111,400 fish. Recent samples from marine test fisheries indicate there are very small proportions of Early Summer sockeye in the marine area.

Summer-run sockeye still dominate the proportions of observed sockeye in the marine test fisheries, and abundances at Mission over the last week, including an upward correction to previous escapement estimates, indicate a later timing than the historical average, but also a slower migration speed than generally assumed. As of September 2, 1,379,500 sockeye have been observed in escapement plus catch. At today's meeting the Panel adopted a further increase to the Summer-run run size of 1,475,000 with an associated Area 20 timing of August 13 as well as a proportional Management Adjustment (pMA) of 0.19. With this increased run size there is still no available harvest for Summer run with the adopted pMA.

For Late-run sockeye, proportions have been increasing in the marine area and seem to be tracking above the p50 forecast level (159,000). The accounted run to date past Mission as of September 2 is 151,100, but part of the Late run may be delaying their entry into the Fraser River. At Monday's meeting, the Panel adopted a Late-run run size

of 234,000 with an associated Area 20 timing of August 16 and at today's meeting, the Panel adopted a further increase to the Late-run run size of 300,000. With this increased run-size there is still no available harvest for Late run.

Fraser River Pink Salmon

The estimated escapement of pink salmon past Mission through September 2 is 1,671,900. Catches of pink salmon in the in-river test fisheries have not increased as much as expected over the last week implying a longer travel time from Area 20 than the assumed travel time of 18 days or a smaller run size than expected. Daily estimates at the Mission hydroacoustic site remain steady and have yet to observe a substantial increase in abundance that might represent the pink salmon observed in the marine test fisheries on August 13 and 14 in Area 20. The large abundance associated with high test fishing catches on August 23 and 24 have not been confirmed by the US pink directed fisheries. Unlike sockeye salmon, pink salmon migrate slower and have demonstrated considerable variability in their migration behavior in the past, making it more challenging to line up observations in Area 20 with observations in Area 7/7A or at Mission. This lack of confirmation of the high test fishing catches in Area 20 increases the uncertainty associated with the abundance represented by these large marine test fishing catches and the associated run size. At Monday's meeting, the Panel adopted an in-season run size of 5,700,000 pink salmon with an associated Area 20 timing of August 18. Further updates of run size will be dependent on additional confirmation of abundances.

Migration conditions in the Fraser River

On September 2, the temperature of the Fraser River at Hope was 16.6°C, which is 0.3°C below average for this date. The Fraser River water discharge at Hope was 1,847cms, which is 25% lower than average for this date. DFO's Environmental Watch program projects that river temperature will remain at or below the historical average temperature, and discharge is forecast to decrease to 1,688cms over the next 6 days, which is also below the historical average for this time of year.

At Big Bar, the discharge is below average. All salmon arriving at Big Bar seem to be able to pass the slide using the nature-like fishway and there is little or no delay in upstream migration. A total of 891 salmon have been radio tagged to date. As of September 1, a total of 1,087,066 salmon have been detected at the Churn Creek telemetry site 40km upstream of Big Bar. Abundances at Big Bar have been tracking predicted abundances based on Mission hydroacoustic data and the proportion of the run expected to migrate past Big Bar.

Escapement Update

The counting fence at Scotch Creek has counted 9,141 sockeye past the fence and sockeye are in the early stages of spawning. Cyclic visual surveys began for the Early Summer populations in the North/South Thompson system on August 16 and sockeye are nearing peak spawning. Cyclic visual surveys in the Upper Chilliwack River report that sockeye are past peak spawning and sockeye in the Nahatlatch River are nearing peak spawning. The Nadina River spawning channel is operational and 1,323 sockeye have been counted into the channel. As of August 29, 6,152 sockeye have been recorded at the Nadina River hydroacoustic site. Visual surveys of Gates Creek were conducted August 28 and sockeye were reported to be holding.

The Chilko River hydroacoustic site is operational and as of August 31 a total of 126,653 sockeye have been estimated into the system and are reported to be holding. The Quesnel River hydroacoustic site is operational and as of August 31, 26,183 sockeye have been estimated into the system. Cyclic visual surveys in the Quesnel system began August 25 on the Horsefly River and sockeye are holding. Water levels in the Quesnel system are well below seasonal average. As of August 31, the Stellako River hydroacoustic site has recorded 11,969 sockeye. Cyclic visual surveys started August 17 on the North Thompson and sockeye in the Raft River are in the early stages of spawning. The first visual survey of Bridge River was conducted on August 30 and sockeye are in or nearing peak spawning.

The Birkenhead River hydroacoustic site began operations August 20 and 209 sockeye have passed the sonar site as of August 23. Cyclic visual surveys in the Harrison-Lillooet report that sockeye in Big Silver Creek are holding. The counting fence at Sweltzer Creek (Cultus Lake) was fish tight as of July 26 and three sockeye have been observed through the fence to date.

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:

TREATY INDIAN FISHERY:

Areas 4B, 5, and 6C: Extend for drift gillnet fishing from 12 p.m. (noon), Saturday, September 4, 2021, through 12 p.m. (noon), Tuesday, September 7, 2021. Sockeye non-retention, all efforts must be made to release sockeye alive.

Areas 6, 7, and 7A in the area southerly and easterly of a straight line drawn from the Iwersen Dock on Point Roberts in the State of Washington to the Georgina Point Light at the entrance to Active Pass in the Province of British Columbia: Open for net fishing from 5 a.m., Saturday, September 4, 2021, through 9 a.m., Tuesday, September 7, 2021. Sockeye non-retention, all efforts must be made to release sockeye alive.

The next in-season meeting of the Panel is scheduled to occur on September 7. 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 Indian)	1-800-562-6142
United States fishing schedules (Non-Indian)	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)	604-666-8200 https://www.psc.org/publications/fraser-panel-in-season-information/test-fishing-results/
DFO's Environmental Watch program	http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html
Province of B.C.: Big Bar Landslide Incident	https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/fish-passage/big-bar-landslide-incident?keyword=big&keyword=bar&keyword=landslide
DFO: Salmon counts at the Big Bar landslide site	https://www.pac.dfo-mpo.gc.ca/pacific-smon-pacifique/big-bar-landslide-eboulement/smon-count-denombrement-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

Canada: Jennifer Nener, Chair, Fraser River Panel

United States: Ron Charles, Vice-Chair, Fraser River Panel

2021 Run status of Fraser sockeye salmon

Date: Sep. 3, 2021

Week of: Aug. 29 - Sep. 4, 2021	Sockeye				Pink	
	Management Group				Total	Total
	E.Stuart	E.Summer	Summer	Late	Fraser	Fraser
Mission passage (includes Pitt, Alouette, Coquitlam) ¹	69,200	110,100	1,367,700	149,300	1,696,300	1,499,700
Catch downstream of Mission	500	1,300	11,800	1,800	15,400	172,200
Accounted run-to-date	69,700	111,400	1,379,500	151,100	1,711,700	1,671,900
Run size adopted in-season ¹	69,000	115,000	1,475,000	300,000	1,959,000	5,700,000
Run size forecasted pre-season	18,000	108,000	1,046,000	159,000	1,331,000	3,009,000
Area 20 timing adopted in-season	5-Jul	4-Aug	13-Aug	18-Aug		18-Aug
Area 20 timing expected pre-season	5-Jul	24-Jul	5-Aug	13-Aug		25-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.

2021 Catch-to-date by fishery

Date: Sep. 3, 2021

Week of: Aug. 29 - Sep. 4, 2021		Sockeye		Pink	
		Total	Fraser	Total	Fraser
Canada		26,780	26,780	2,359	504
	Commercial	0	0	130	22
	B Purse Seine	0	0	0	0
	D Gillnet	0	0	0	0
	E Gillnet	0	0	0	0
	F Troll	0	0	0	0
	G Troll	0	0	130	22
	H Troll	0	0	0	0
	First Nations	12,236	12,236	2,188	441
	Food, Social & Ceremonial (FSC)	12,236	12,236	2,188	441
	Marine	0	0	2,063	316
	Fraser R.	12,236	12,236	125	125
	Economic Opportunity (EO) & Demonstration (Demo)	0	0	0	0
	Marine	0	0	0	0
	Fraser R.	0	0	0	0
	Recreational	0	0	0	0
	Marine	0	0	0	0
	Fraser R.	0	0	0	0
	Charter (Albion gillnet test fishery)	402	402	41	41
	Unsanctioned**	14,142	14,142	0	0
United States		2	2	215,990	169,799
	Commercial	0	0	215,990	169,799
	Treaty Indian (TI)	0	0	87,387	69,861
	All Citizen (AC)	0	0	128,603	99,938
	Treaty Indian Ceremonial & Subsistence (C&S)	2	2	0	0
	All Citizen Recreational	0	0	0	0
	Alaska *	na	na	na	na
Panel-approved Test Fisheries		17,611	17,202	5,981	2,196
	Panel Waters	11,511	11,350	3,173	1,434
	Non-Panel Waters	6,100	5,852	2,808	761
Total		44,393	43,985	224,330	172,499

* 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