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WEEKLY REPORT

July 13, 2018

The Fraser River Panel (Panel) of the Pacific Salmon Commission has developed management plans for 2018 Fraser River sockeye salmon fisheries in Panel Area waters.

Pre-season Expectations

Fisheries and Oceans Canada (DFO) provided forecasts of Fraser River sockeye salmon abundance to the Panel, as well as a schedule for calculating sockeye spawning escapement targets at different run sizes. The total Fraser sockeye forecast mid-point (50% probability level forecast) is 13,981,000 million fish for 2018, which is similar to the long-term average return for this cycle line. The Late-run group, specifically the Late Shuswap stock group, comprises 50% of the total Fraser River sockeye. If recent trends of warm temperatures in BC freshwater and marine ecosystems persist, DFO has advised that Fraser River sockeye salmon forecasts for 2018 could return at the lower end of the forecast range, 5,265,000 and 8,423,000 million at the 10% and 25% probability level forecasts, respectively. For pre-season planning purposes, the Panel used the Fraser sockeye 50% probability level 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 84,000 fish (ranges from 54,000 to 133,000 fish at the 25% and 75% probability levels). The forecast for Early Summer-run sockeye at the 50% probability level is 2,155,000 fish (ranges from 1,102,000 to 3,765,000 fish at the 25% and 75% probability levels), with Early Shuswap and Early Thompson sockeye comprising 85% of the total Early Summer return. The Summer-run sockeye return forecast at the 50% probability level is 4,344,000 fish (ranges from 2,473,000 to 7,669,000 fish at the 25% and 75% probability levels), with Chilko and Quesnel sockeye expected to comprise nearly 78% of the total Summer-run sockeye return. The Late-run sockeye return forecast at the 50% probability level is 7,398,000 fish (ranges from 4,794,000 to 11,370,000 fish at the 25% and 75% probability levels), with Late Shuswap sockeye expected to comprise over 94% of the total Late-run return.

Marine conditions were used to forecast the 50% marine timing of Early Stuart sockeye through Area 20 of July 02, which is one day earlier than the median timing (1951-2017) of July 03. The 50% timing of Chilko sockeye through Area 20 is forecast to be August 11 which is three days later than the median timing (1993-2017) of August 08. Given the recent high diversion rates on this cycle line through Johnstone Strait the Panel chose to adopt the 1990-2017 median diversion rate of 63% for planning purposes compared to the forecast of 56%.

Pre-season expected abundance-timing curves for Fraser River sockeye salmon (Figure 1) stock-groups are shown below.

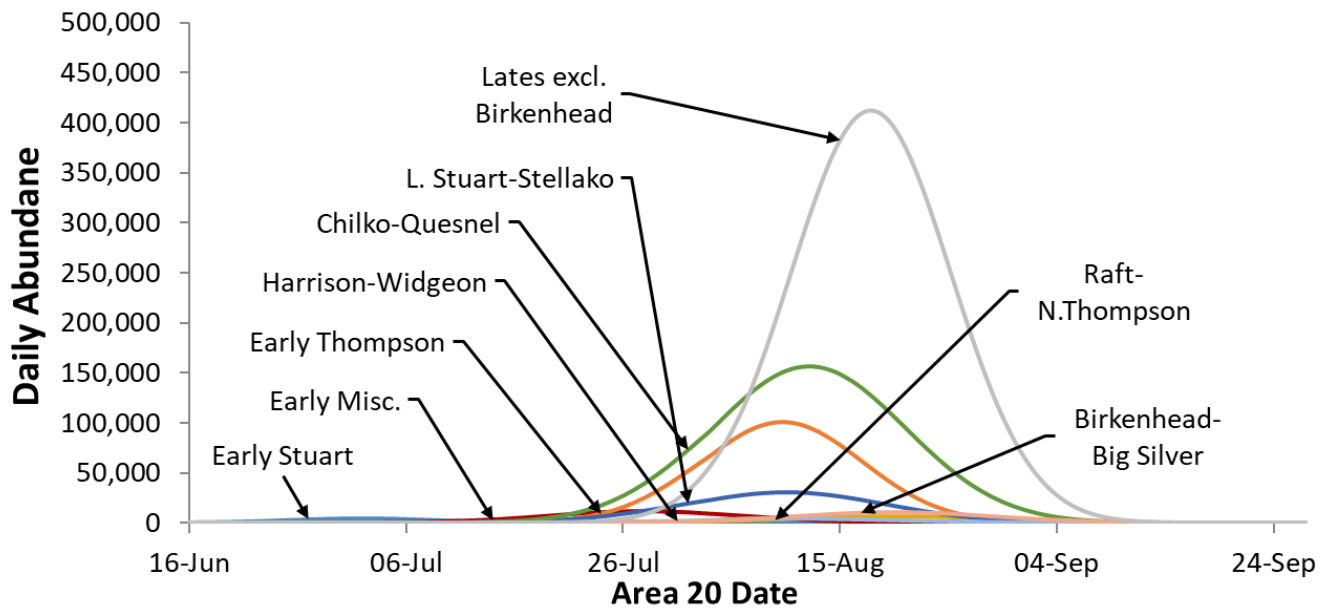


Figure 1. Expected abundance timing curves for Fraser River sockeye salmon.

The upper Fraser River is the main driver for the discharge at Hope during the mid-summer period, and as of June 01 the snowpack was low in the upper watershed. Fraser River discharge levels are forecast to be below average during the sockeye migration period. Air temperatures are forecast to be higher than average this summer which combined with lower than average flows is expected to result in higher than average water temperatures. Fraser River water temperatures have been above the historic mean for the latter part of June, and are expected to be above average for the season which may result in difficult migration conditions for sockeye migrating to their spawning streams. The Panel has adopted pre-season management adjustments in anticipation of the potential for en-route losses as a precautionary measure. Management adjustments are additional fish that are removed from identified allowable harvest levels and instead allowed to migrate upstream to help achieve spawning escapement targets for Fraser River sockeye management groups.

Management Constraints and Expectations

The forecasts for Fraser sockeye management groups expected in 2018 have been a dominant factor in the development of pre-season fishing plans. The forecast for this year’s Early Stuart run is small enough for Canada’s escapement plan to trigger the implementation of a low abundance exploitation rate (LAER) for this group, which limits harvest opportunities on co-migrating Early Summer-run sockeye salmon. Since 1996, the Late-run group has demonstrated abnormally early upstream migration, relative to the historic timing. This abnormal migration behavior continues to substantially reduce harvest opportunities on this group and on co-migrating Summer-run sockeye. Further complicating the Late-run harvest opportunities for Canada are the management constraints associated with Cultus Lake sockeye. For Cultus Lake sockeye the maximum exploitation rate (ER) will be the greater of the LAER identified for Late-run sockeye or the exploitation rate that is consistent with continued rebuilding of the population based on in-season information on returns and potential numbers of effective spawners.

Despite the constraints imposed by low returns for the Early Stuart run and the potential for adverse Fraser River conditions, pre-season plans were developed which indicate that the United States should be able to fully harvest their shares of total allowable catches (TAC), whereas Canada’s ability to harvest their share of the TAC, particularly for the Late-run management group, may be constrained by Cultus Lake sockeye. Additional management actions may be taken by Canada to protect Sakinaw sockeye and Interior Fraser coho. Conservation concerns for other species and stocks identified by Canada and the United States will be taken into account

throughout the management season.

If in-season conditions are consistent with pre-season expectations, low impact fisheries would be expected to commence in late July in Panel Waters. The actual start dates and duration of fisheries will depend on in-season estimates of timing, abundance, diversion, and agreed management adjustments as well as concerns for other co-migrating species.

Run Status

Gillnet test fishing began in the Fraser River on June 22 in Area 29d (at Whonnock), July 02 at Qualark Creek, and July 12 in Area 29b (at Cottonwood). Marine gillnet test fisheries began on July 10 in Area 20 (Juan de Fuca Strait) and July 12 in Area 12 (Johnstone Strait; Round Island). Test fishery catches in the Fraser River have generally been very low and Marine area 20 and 12 test fisheries have just started in recent days. Stock identification analyses obtained from in-river test fisheries confirm the expected pattern of a high proportion of Early Stuart and Nadina sockeye. Hydroacoustics estimates commenced July 01 at Qualark and July 05 at Mission. In-season assessments of the abundance of Early Stuart sockeye are indicating the return is above the p50 forecast (84,000).

Environmental Update

On July 12, the Fraser River water discharge at Hope was about 5,021 cms, which is approximately 9% lower than average for this date. The temperature of the Fraser River at Qualark on July 12 was 17.3 °C, which is 1.3 °C higher than average for this date. DFO's Environmental Watch program projects that river temperature will remain near current levels, while discharge is forecast to decrease to about 4,355 cms over the next 10 days.

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 17. 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 http://www.psc.org/info_testfishing.htm .
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: Kirt Hughes, Chair, Fraser River Panel
 Canada: Jennifer Nener, Vice-chair, Fraser River Panel

2018 Run status of Fraser sockeye

Date: Jul. 13, 2018

Week of: Jul. 8 - Jul. 14, 2018	Sockeye					Total Fraser
	Management Group					
	E.Stuart	E.Summer	Summer	Late		
Mission passage (includes Pitt, Alouette, Coquitlam)	75,000	17,500	0	0		92,500
Catch downstream of Mission	300	200	0	0		500
Accounted run-to-date	75,300	17,700	0	0		93,000
Run size adopted in-season¹	0	0	0	0		na
Run size forecasted pre-season	84,000	2,155,000	4,344,000	7,398,000		13,981,000
Area 20 timing adopted in-season	na	na	na	na		
Area 20 timing expected pre-season	2/Jul	8/Aug	11/Aug	17/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.

2018 Catch-to-date by fishery

Date: Jul. 13, 2018

Week of: Jul. 8 - Jul. 14, 2018		Sockeye	
		Total	Fraser
Canada		10	10
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)		10	10
United States		0	0
Commercial		0	0
	Treaty Indian (TI)	0	0
	All Citizen (AC)	0	0
Treaty Indian Ceremonial & Subsistence (C&S)		0	0
All Citizen Recreational		0	0
Alaska *		na	na
Panel-approved Test Fisheries		830	780
Panel Waters		810	770
Non-Panel Waters		20	10
Total		840	790

* Recent LFA Recreational catches may be projected based on a scalar applied to Mission Escapement.

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