

File: 71007

**DRAFT AGENDA**  
**PACIFIC SALMON COMMISSION**  
**FRASER RIVER PANEL**  
**Tuesday August 1, 2023 at 11:00 am.**  
**Via Zoom Webinar**  
<https://psc-org.zoom.us/j/88416242194>

- 1) Roll Call (Panel and Tech members, others please email [Julie, ehrmantraut@psc.org](mailto:Julie_ehrmantraut@psc.org))
- 2) Webinar Etiquette:
  - a) Mute Phone: Please mute phone unless you are asking a question
  - b) Chat feature: Please use for questions regarding the distribution only
- 3) Agenda
- 4) Run status of Fraser River sockeye salmon relative to forecasts and adopted run sizes PSC Staff
- 5) In-season data flow for updating objectives PSC staff
  - a) Test fishing catches and acoustics
  - b) Mission projected sockeye vs. Qualark sockeye comparison
  - c) Stock proportions
  - d) Environmental conditions
  - e) Observations from the watershed DFO
- 6) Assessments and recommendations PSC Staff
  - a) Migration graphs, escapement projections, run size assessments
- 7) Review any decisions on staff recommendations Panel
- 8) Other Business Panel
- 9) Next FRP Meeting, Friday August 4, 11:00 a.m. via Zoom Webinar Panel  
 Next Technical Committee meeting, Thursday August 3, 1:00 p.m. via Zoom TC

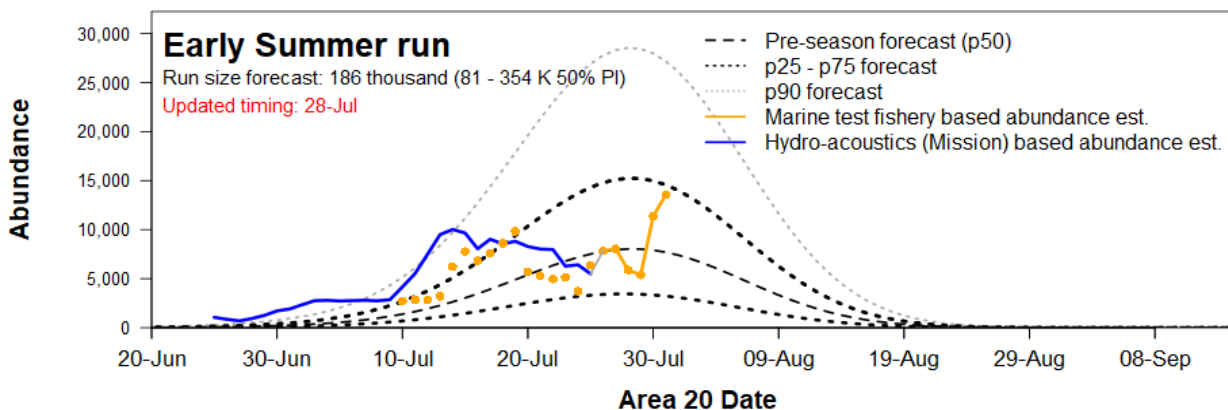
### 2023 Run status of Fraser sockeye and pink salmon

Date: Aug. 1, 2023

The information presented in this distribution has been prepared by PSC Secretariat staff and should be considered preliminary until reviewed by the Fraser River Panel

Week of: Jul. 30 - Aug. 5, 2023	Sockeye				Total Fraser	Pink Total Fraser
	Management Group					
	E.Stuart	E.Summer	Summer	Late		
Mission passage (incls Pitt, Alouette, Coquitlam)	40,600	154,800	25,700	300	221,400	0
Catch downstream of Mission	200	2,300	1,300	100	3,900	300
Accounted Run To Date	40,800	157,100	27,000	400	225,300	300
Run size adopted in-season <sup>2</sup>	<b>43,000</b>	na	na	na	na	na
Run size forecasted pre-season	23,000	186,000	1,167,000	188,000	1,564,000	6,135,000
Area 20 timing adopted in-season	<b>2/Jul</b>	na	na	na	na	na
Area 20 timing expected pre-season	7/Jul	6/Aug	17/Aug	24/Aug	16/Aug	24/Aug
<b>Johnstone Str. Diversion Rate</b>	In-season 5-day average				<b>27%</b>	<b>na</b>
	Preseason forecast of annual rate:				67%	53%

<sup>2</sup> 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.



2023 Fraser Sockeye Test Fishing & Escapement Summary

Area/Gear Location From A20	Johnstone Strait		Juan de Fuca Strait						Fraser River					
	A12 GN Round Is (-2 days)	A12 PS Blinkhorn (-1 day)	A20 GN* Port Renfrew (0 days)	A20 PS Port Renfrew (0 days)	A29-13 GN Cottonwood (+5 days)	A29-17 GN Brownsville Bar <sup>1</sup>	A29-16 GN Whonnock (+6 days)	Whon CPUE Estimate (+6 days)	Qualark GN Catch (+8 days)	Qualark Estimate <sup>2</sup>	Qualark Method <sup>3</sup>	Mission Hydroacoustics Estimate <sup>4</sup> (+6 days)	Mission Method <sup>5</sup>	Hells Gate Estimates <sup>6</sup> (+10 days)
11-Jul	1		129				3	0.28	4 **	3,372	RB + LB	3,600	S1+M+A2	0
12-Jul	6		90			20	0	0.00	5 (Two sets)	4,078	RB + LB	3,800	S1+M+A2	170
13-Jul	2		39			14	3	0.29	14 **	4,082	RB + LB	4,600	S1+M+A2	300
14-Jul	17		48			12	13	1.17	9 **	4,777	RB + LB	3,300	S1+M+A2	370
15-Jul	9		146			19	13	1.17	8 **	3,765	RB + LB	3,200	S1+M+A2	530
16-Jul	2		26			25	29	2.45	11 **	4,754	RB + LB	4,100	S1+M+A2	580
17-Jul	10		15			21	29	2.37	4 **	3,245	RB + LB	7,000	S1+M+A2	620
18-Jul	11		194			12	40	3.03	5 **	5,724	RB + LB	6,100	S1+M+A2	670
19-Jul	18		73			7	28	2.18	9 **	6,009	RB + LB	9,300	S1+M2+A2	900
20-Jul	10	67	72			7	18	1.48	10 **	7,528	RB + LB	11,700	S1+M2+A2	560
21-Jul	3	31	28	167		13	2	0.19	15 **	7,162	RB + LB	7,800	S1+M2+A2	1,580
22-Jul	3	62	69	28		50	0	0.00	6	4,652	RB + LB	9,000	S1+M2+A2	No Count
23-Jul	1	349	53	62 (5 sets)		48	2	0.17	12	7,054	RB + LB	8,000	S1+M2+A2	1,880
24-Jul	15	7 (4 Sets)	10	70		18	5	0.48	27 (5 sets)	8,566	RB + LB	11,500	S1+M2+A2	730
25-Jul	7	134	6	50		43	2	0.19	15 (5 sets)	9,079	RB + LB	9,100	S1+M2+A2	1,970
26-Jul	6	1,390	52	70	16	42	4	0.37	15	9,408	RB + LB	10,900	S1+M2+A2	1,880
27-Jul	15	107	62	127	9	40	2	0.17	9	8,444	RB + LB	8,900	S1+M2+A2	5,000
28-Jul	17	522	7	81	20	36	9	0.83	10	6,521	RB + LB	7,500	S1+M2+A2	3,010
29-Jul	End	13	141	265	1	17	3	0.27	11	6,965	RB + LB	9,800	S1+M2+A2	2,660
30-Jul		239	End	384	3	44	5	0.47	11	5,396	RB + LB	7,400	S1+M2+A2	930
31-Jul		99		1,021	8	66	19	1.64	8 (4 sets)			11,900	S1+M2+A2	890
1-Aug														
2-Aug														

<sup>1</sup> Alternative Lower River Test Fishery - Southern Endowment Fund Project

<sup>2</sup> Qualark escapement estimate - does not include Chilliwack, Pitt, Harrison, Birkenhead, Big Silver, Weaver, and Cultus

<sup>3</sup> Qualark source:

RB x 2 = Right-bank (R) + Left-bank (L)

<sup>4</sup> Mission escapement estimate - does not include Pitt

<sup>5</sup> Mission source:

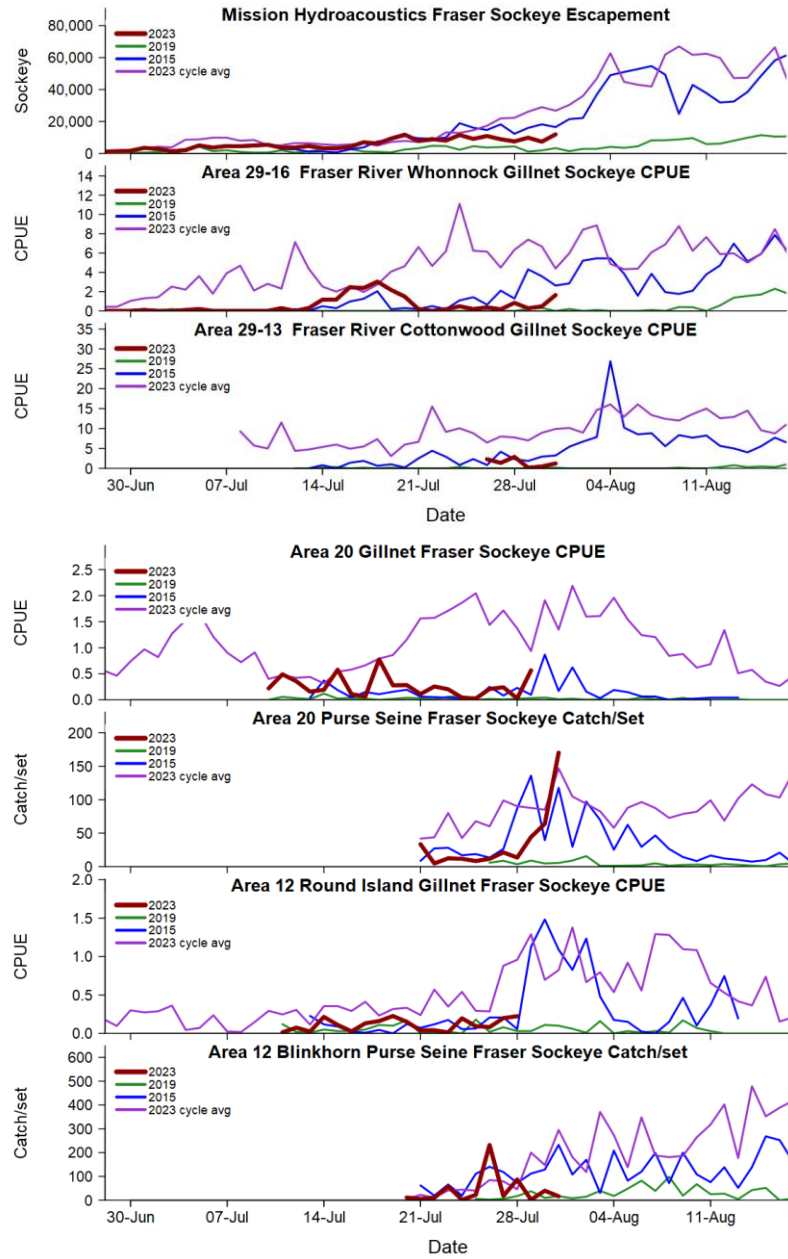
S1+M+A2 = Left bank s    A1+M+A2 = Left-bank ARIS (A1) + Mobile split-beam (M) + Right-bank ARIS (A2)

S1+M2+A2 = Left bank    A1+M+A2 = Left-bank ARIS (A1) + Mobile ARIS (M2) + Right-bank ARIS (A2)

<sup>6</sup> Daily Hells Gate abundance estimate; actual daily count has been expanded.

\* Area 20 Gillnet - two boats fishing each day, unless specified otherwise. One boat is fishing with a 5" Alaska twist net, while the other is fishing a 5 1/8" multistrand net.

\*\* Three sets performed for Qualark Gillnet



2023 Fraser Pink Test Fishing & Escapement Summary

Area/Gear Location From A20	Johnstone Strait	Juan de Fuca Strait	Fraser River									
	A12 PS Blinkhorn (-1 day)	A20 PS Port Renfrew (0 days)	A29-13 GN Cottonwood (+5 days)	A29-17 GN Brownsville Bar <sup>1</sup>	A29-16 GN Whonnock (+6 days)	Whon CPUE Estimate (+6 days)	GN Catch (+8 days)	Qualark Estimate <sup>2</sup>	Method <sup>3</sup>	Mission Hydroacoustics Estimate <sup>4</sup> (+6 days)	Method <sup>5</sup>	Hell's Gate Estimates <sup>6</sup> (+10 days)
11-Jul					0	0.00	0**	0	RB x 6	0	S1+M+A2	0
12-Jul				0	0	0.00	0**	0	RB x 7	0	S1+M+A2	0
13-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
14-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
15-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
16-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
17-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
18-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M+A2	0
19-Jul				0	0	0.00	0**	0	RB+LB	0	S1+M2+A2	0
20-Jul	302			0	0	0.00	0**	0	RB+LB	0	S1+M2+A2	0
21-Jul	931	128		0	0	0.00	0**	0	RB+LB	0	S1+M2+A2	0
22-Jul	549	410		0	0	0.00	0	0	RB+LB	0	S1+M2+A2	No Count
23-Jul	1,782	1344 (5 sets)		0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
24-Jul	69 (4 sets)	2,440		0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
25-Jul	927	1,150		0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
26-Jul	9,305	3,364	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
27-Jul	3,334	10,148	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
28-Jul	11,055	6,285	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
29-Jul	574	7,964	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
30-Jul	1,800	6,100	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
31-Jul	2,199	4,152	0	0	0	0.00	0	0	RB+LB	0	S1+M2+A2	0
1-Aug												
2-Aug												

<sup>1</sup> Alternative Lower River Test Fishery - Southern Endowment Fund Project

<sup>2</sup> Qualark escapement estimate - does not include Chilliwack, Pitt, Harrison, Birkenhead, Big Silver, Weaver, or Cultus

<sup>3</sup> Qualark source:

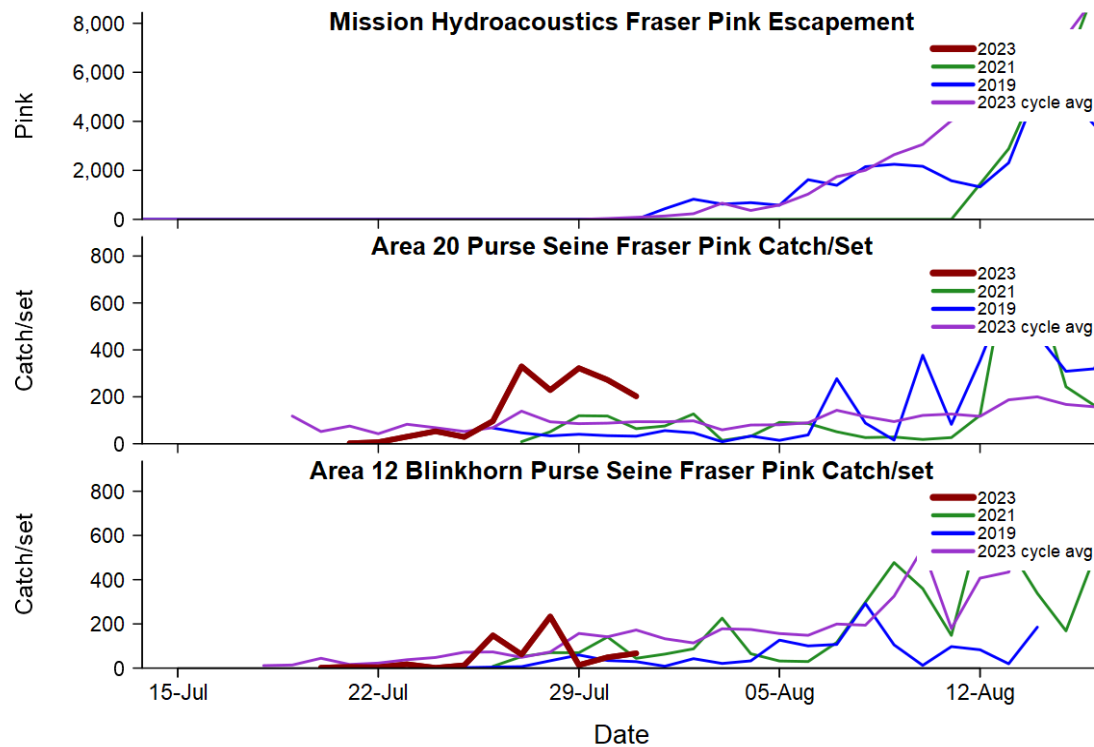
<sup>4</sup> Mission escapement estimate - does not include Pitt

<sup>5</sup> Mission source:

<sup>6</sup> Daily Hells Gate abundance estimate; actual daily count has been multiplied by 2.

\* Area 20 Gillnet - two boats fishing each day, unless specified otherwise. One boat is fishing with a 5" Alaska twist net, while the other is fishing a 5 1/8" multistrand net.

\*\* Three sets performed for Qualark



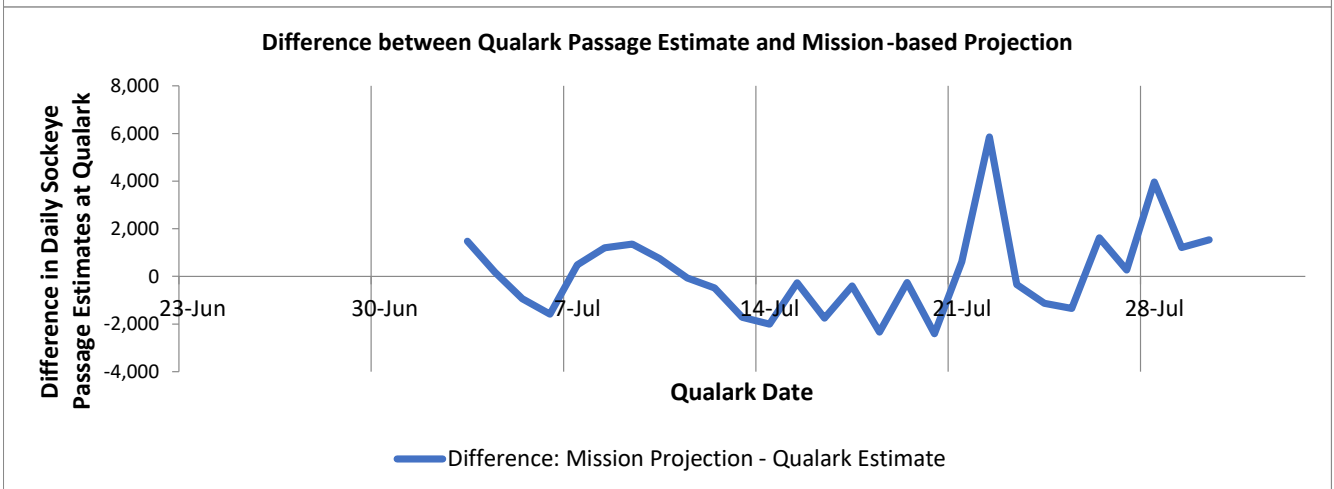
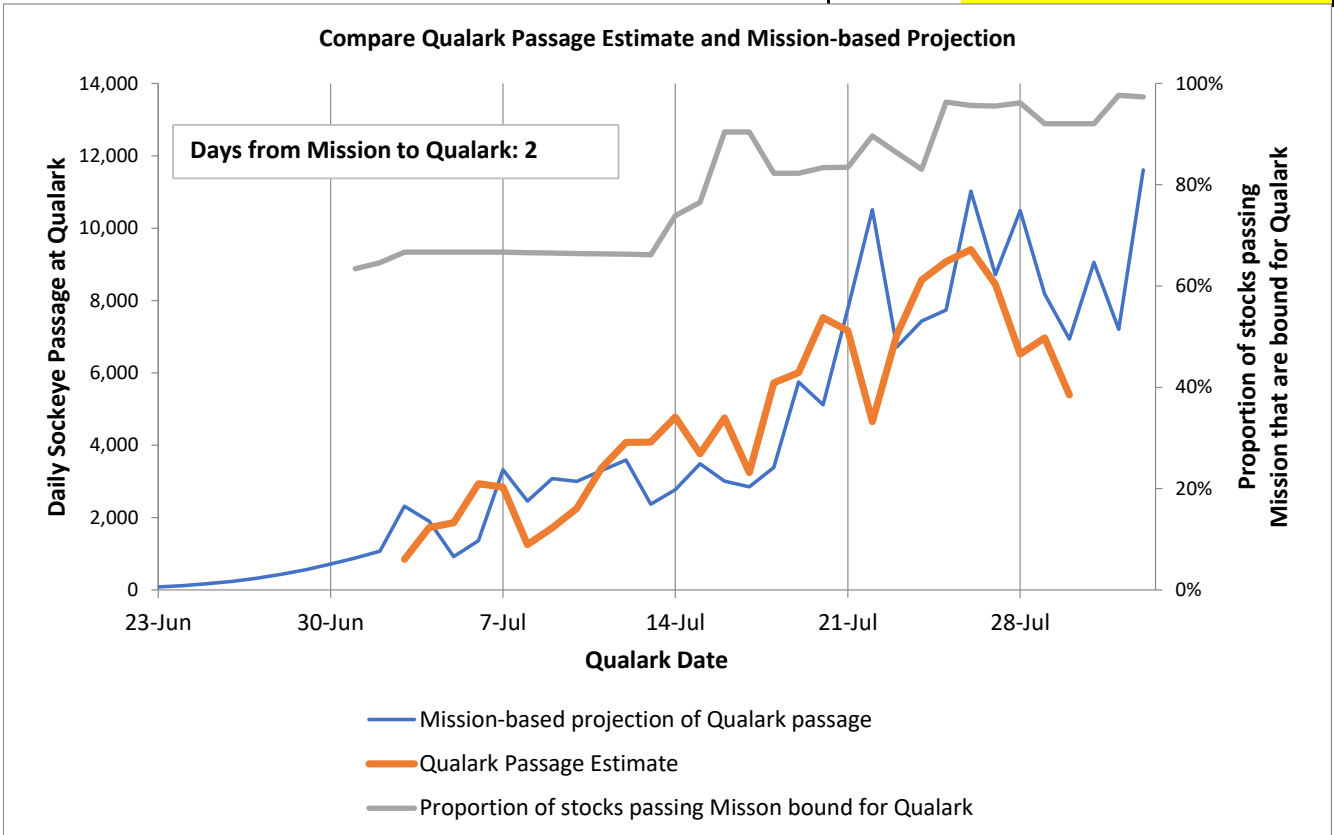
Fraser Sockeye: Qualark Passage Estimate and Mission-based Projection

Year: **2023**

Date: 1/Aug/23

Time: 9:49 AM

	All Days	Common Days
Mission projection	171,960	139,489
Qualark estimate	136,022	136,022
	<b>Difference</b>	<b>3,467</b>
	<b>%Difference</b>	<b>2%</b>

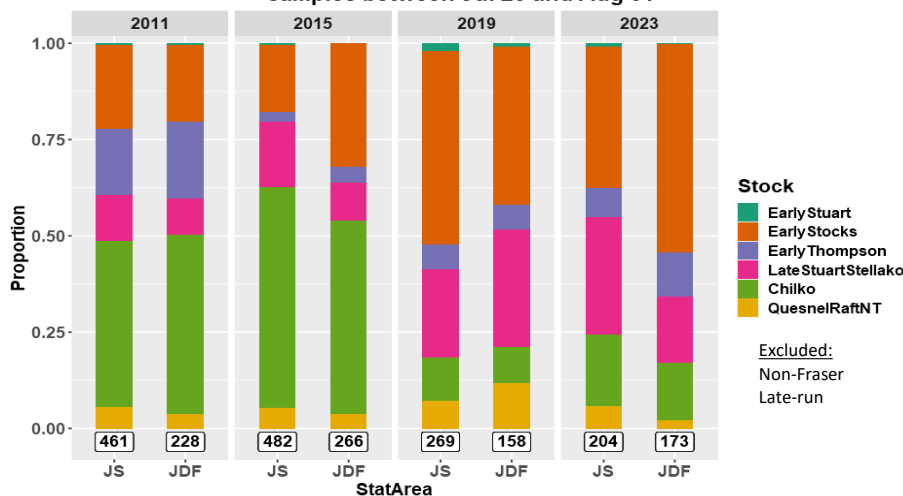


### 2023 Fraser River Sockeye Salmon Stock identification Review

Recent stock composition estimates for sockeye salmon

Fishing Area/Gear <sup>1</sup> Sector <sup>2</sup> Date Type <sup>3</sup> Sample Size (n) %Fraser						Fraser-only Stock Proportions by Reporting Group <sup>4</sup> (%)													Age (%)		
						Early Stuart	Early Summer					Summer					Late			Overall Stocks	
						Early Stuart	Chilli-wack	Pitt Alouette	Nadina Bowron Gates Nahat-latch	Early Thompson	Early Summer sub-total	Harrison	Late Stuart	Chilko	Raft North Thompson	Summer sub-total	Birken-head Big Silver	Late Shuswap Portage	Weaver Cultus	Late sub-total	Age-4 <sub>2</sub>
<b>Johnstone Strait &amp; Queen Charlotte Strait</b>																					
A12 ps	tf	Jul 25	DNA	100	87%	0%		6%	36%	6%	48%	1%	27%	22%		50%	2%			2%	48%
A12 ps	tf	Jul 26	DNA	95	91%	0%	1%	2%	35%	9%	47%		27%	22%		49%		3%		3%	54%
A12 gn	tf	Jul27-28	DNA	32	69%	0%			5%	11%	15%		47%	37%		85%				0%	NA
A12 ps	tf	Jul 29	DNA	13	77%	10%			9%		9%		51%	30%		81%				0%	60%
A12 gnps		Aug 3	Prediction	1	95%	0%			10%	7%	17%		36%	46%		83%				0%	NA
<b>Juan de Fuca Strait &amp; Washington &amp; Other</b>																					
A20 ps	tf	Jul 25	DNA	45	89%	0%	5%	10%	36%	12%	63%	13%	12%	10%		34%	2%	0%		2%	33%
A20 gn	tf	Jul26-28	DNA	66	88%	0%	3%	19%	34%	11%	67%	10%	6%	10%		26%	3%		3%	7%	36%
A20 ps	tf	Jul 29	DNA	95	95%	0%	1%	8%	32%	9%	50%	4%	22%	20%		47%	1%	1%		2%	47%
A20 gnps		Aug 3	Prediction	1	92%	0%	1%	4%	9%	4%	18%	7%	33%	37%		78%	2%		2%	4%	NA
<b>In-river</b>																					
AB gn	tf	Jul28-29	DNA	14	100%	0%			65%	1%	65%		5%	30%		35%				0%	40%
BB gn Cot	tf	Jul27-28	DNA	29	100%	4%	3%	10%	54%	3%	71%		9%	17%		26%				0%	38%
BB gn Bro	tf	Jul27-28	DNA	71	100%	5%	9%	10%	56%	3%	78%	2%	11%	4%		17%				0%	44%
BB gn	tf	Jul29-30	DNA	58	100%	0%		7%	39%	8%	54%	3%	27%	14%	1%	46%				0%	32%

Stock proportion comparison across years for GN&PS samples between Jul 25 and Aug 01



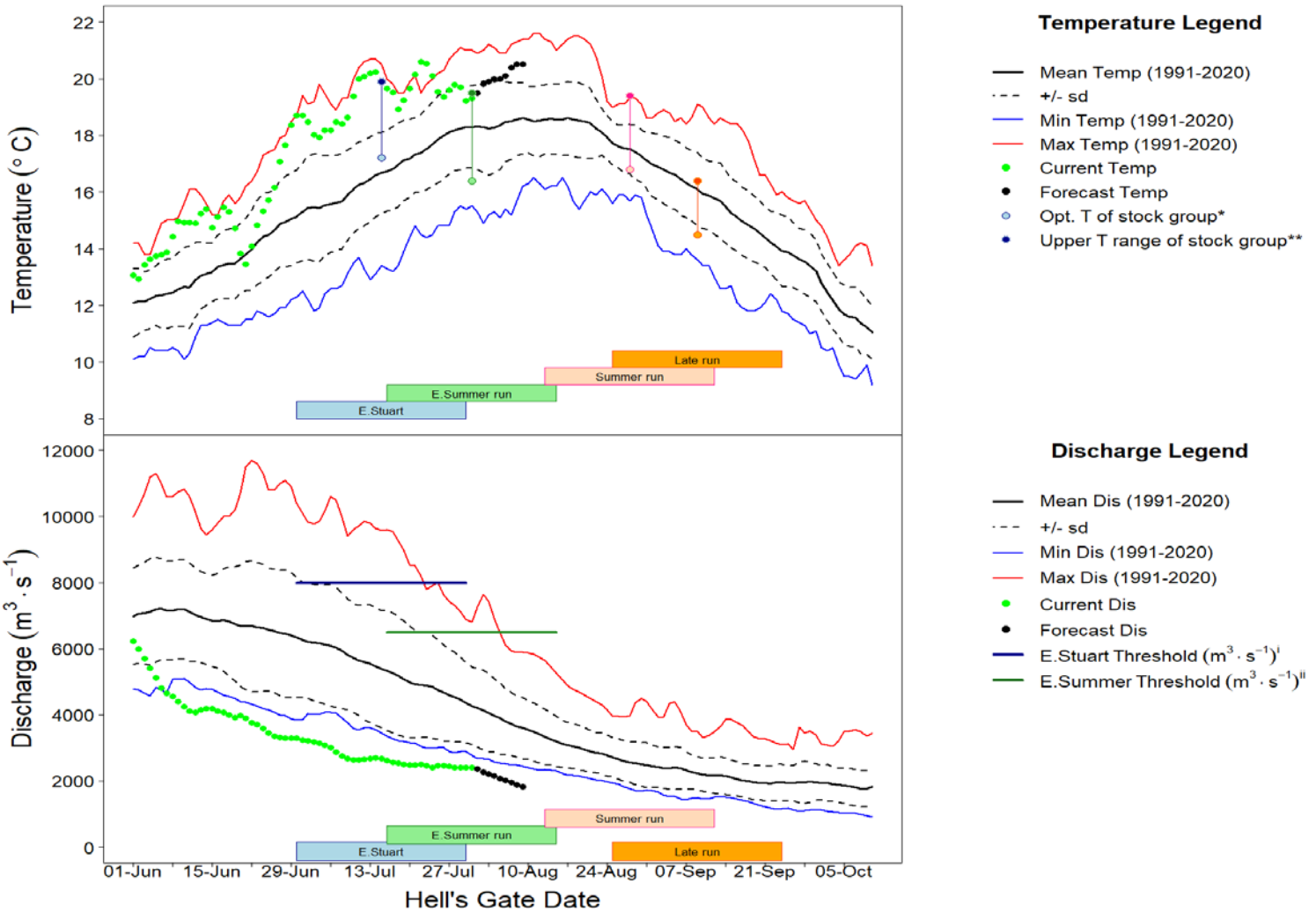
**Notes for sockeye and pink tables:**

- <sup>1</sup> BB GN=29\_13 (Cottonwood,Brownsville), AT = Alaska Twist, AB GN= 29\_16 (Whonnock), MA FW=Matsqui Fish Wheel, QU GN=Qualark
- <sup>2</sup> TF=sample from test fishery catch, CM=sample from commercial catch, C&S=ceremonial & subsistence catch, FSC=food, social, & ceremonial catch, rec= recreational catch
- <sup>3</sup> Predictions for sockeye are multinomial extrapolations of current year data to 5 days after the last observation; Predictions for pink salmon are projections of stock compositions based on historic and current data
- <sup>4</sup> Further information relating stock group descriptions to spawning ground locations and population definitions can be found at [http://www.psc.org/FRPWeb/Escapement/PSC\\_Fraser\\_Sockeye\\_Stock\\_Group\\_Definitions.pdf](http://www.psc.org/FRPWeb/Escapement/PSC_Fraser_Sockeye_Stock_Group_Definitions.pdf)

Results in grey text have been presented to the Panel previously

<b>Observed Fraser River Temperature at Qualark for 31-Jul</b>	19.3°C
<b>Average (1991-2020) Historical Temperature on this day</b>	18.3°C
<b>Deviation from Average</b>	1°C
<b>Forecast Temperature for 06-Aug-23</b>	20.1°C
The forecast in Kamloops is for above average air temperature. The forecast for Prince George is for above average air temperature.	

<b>Observed Fraser River Discharge at Hope for 31-Jul</b>	2415 m <sup>3</sup> ·s <sup>-1</sup>
<b>Average (1991-2020) Historical Discharge on this day</b>	4274 m <sup>3</sup> ·s <sup>-1</sup>
<b>% above or below Historical Discharge</b>	-43%
<b>Forecast Discharge for 06-Aug-23</b>	2021 m <sup>3</sup> ·s <sup>-1</sup>
The forecast in Kamloops is for 17 mm precipitation. The forecast in Prince George is for 6 mm of precipitation.	



Run timing bars represent a 31 day spread of the run centered around the Hell's Gate date. Hell's gate timing is 5 days from Mission for Early Stuart and Late run; and 4 days from Mission for Early Summer and Summer run. <sup>i</sup>pMA is the proportional increase to spawning escapement targets to help ensure targets are achieved. <sup>ii</sup>%DBE is %difference between estimates of potential spawning escapement and spawning escapement. \*This is the optimum temp for aerobic swimming - T<sub>opt</sub> (Eliason et al. (2011). Science 332: 109-112)\*\*This is the upper range of the optimum temp for aerobic swimming - T<sub>pejus</sub>. <sup>i</sup>Discharge threshold of 8000cms for Early Stuart from Macdonald (2000). Can. Tech. Rep. Fish. Aquat. Sci. 2315: 120p. <sup>ii</sup>Discharge threshold of 6500cms for Early Summer run from Macdonald et al. (2010). Trans. Am. Fish. Soc. 139: 768-782. 19 days of T & Q data are required to calculate a pMA - 15 days before the Hell's Gate Date and 3 days after. MA estimates can be calculated 4 days after the Area 20 date.

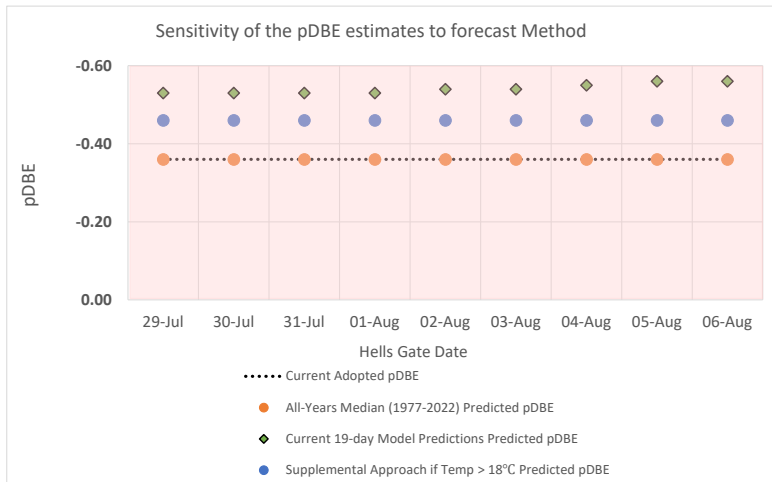
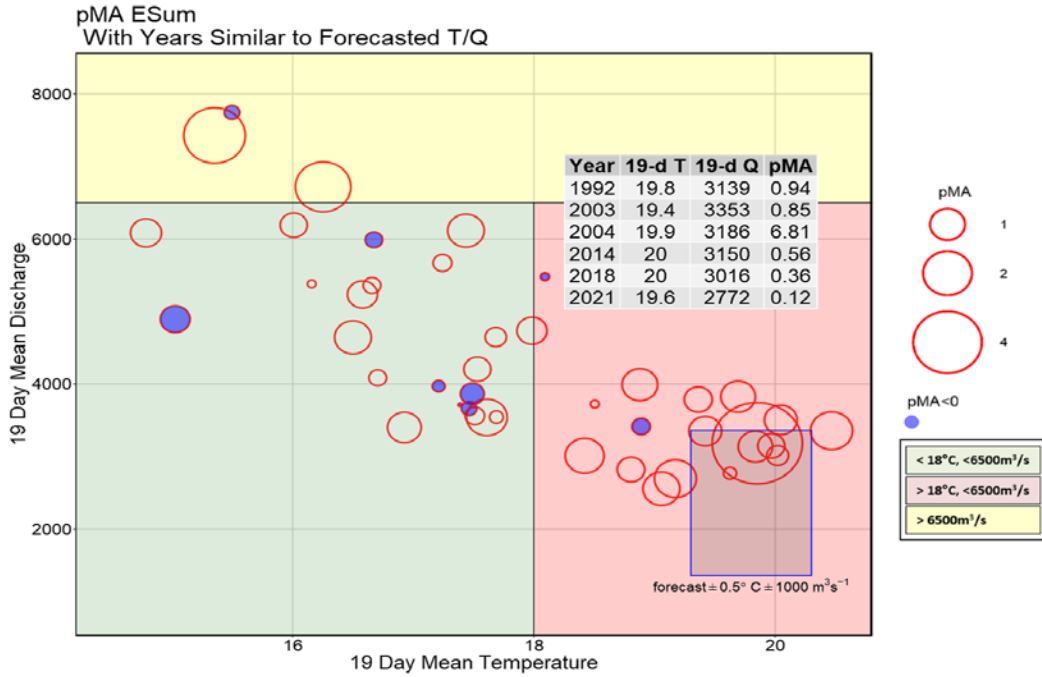


Current Temperatures						
Upriver of Slide	Map #	30-Jul	Daily Mean	Historic Mean	Deviation from Historical Mean	Historic Year Range
<b><u>Fraser River Mainstem</u></b>						
	1	Fraser River @ Qualark	<b>19.2</b>	<b>18.3</b>	<b>0.9</b>	<b>1991-2020</b>
	2	Fraser River @ Texas Creek	<b>18.4</b>	<b>18.2</b>	<b>0.2</b>	<b>2006-2022</b>
	3	Fraser River @ Big Bar Creek	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2019-2022</b>
▶	4	Fraser River @ Marguerite	<b>18.1</b>	<b>18.3</b>	<b>-0.2</b>	<b>2015-2022</b>
▶	5	Upper Fraser @ Shelley	<b>16.5</b>	<b>15.1</b>	<b>1.4</b>	<b>1994-2022</b>
<b><u>Fraser River Tributaries</u></b>						
	6	Thompson R. @ Ashcroft	<b>19.7</b>	<b>17.7</b>	<b>2.0</b>	<b>1995-2022</b>
	7	South Thompson @ Chase	<b>19.8</b>	<b>19.3</b>	<b>0.5</b>	<b>1994-2022</b>
	8	North Thompson @ McLure	<b>18.4</b>	<b>15.5</b>	<b>2.9</b>	<b>2006-2022</b>
▶	9	Quesnel R. @ Quesnel	<b>18.2</b>	<b>16.1</b>	<b>2.1</b>	<b>2000-2022</b>
▶	10	Nechako R. @ Isle Pierre	<b>NA</b>	<b>19.2</b>	<b>NA</b>	<b>2006-2022</b>
▶	11	Stuart R. @ Ft. St. James	<b>18.9</b>	<b>18.8</b>	<b>0.1</b>	<b>2000-2022</b>



## Early Summer run pDBE Forecast and Sensitivity Analysis for August 01, 2023

Based on the retrospective analysis evaluation of 2010-2021 for Early Summer run the best performing in-season model is the All-years Median (1977-2021)

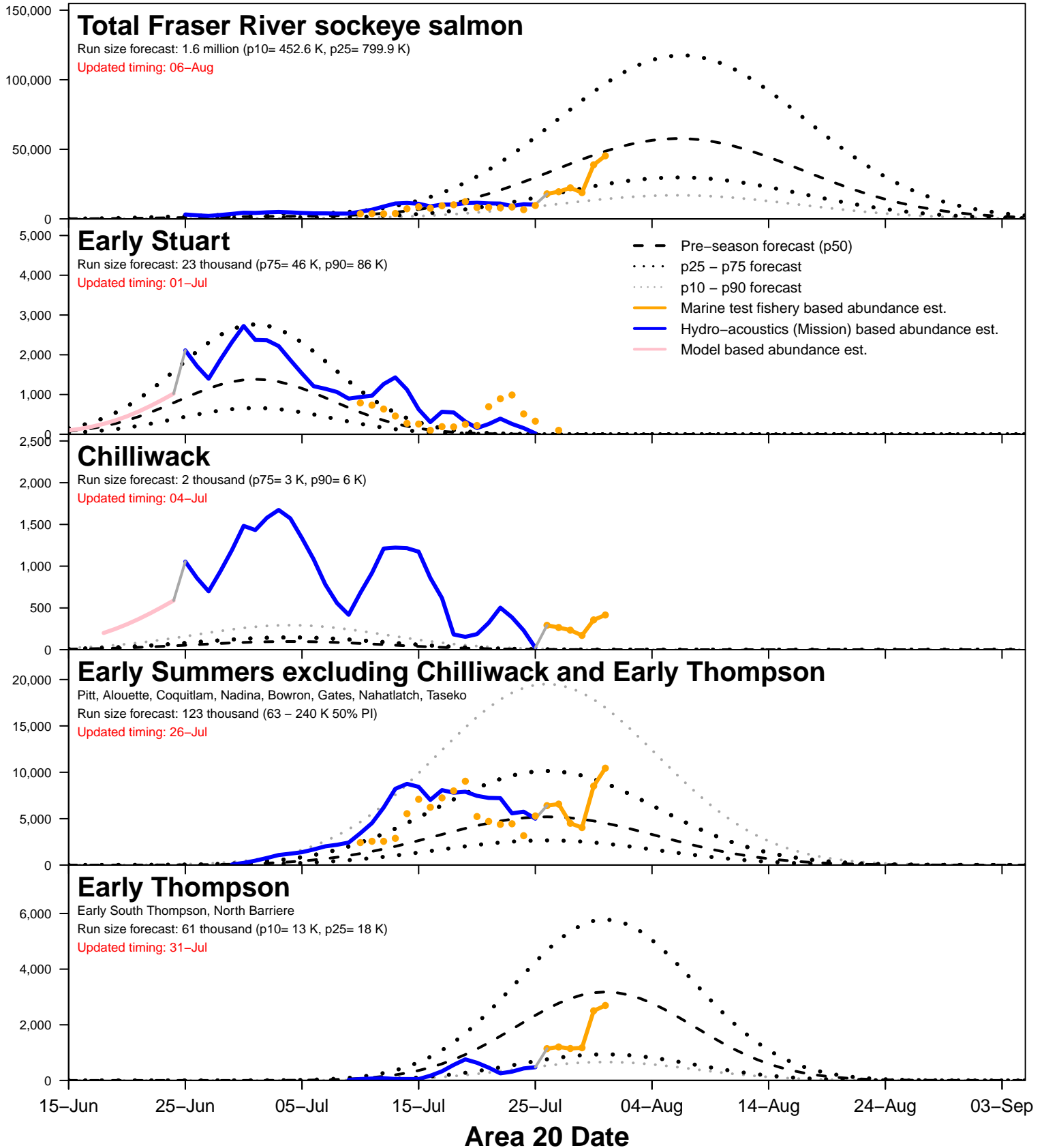


Model Performance Based on "In-season pDBE Approach"				Retrospective			
				Best		2	3
				Current Adopted	All-Years Median (1977-2022)	Supplemental Approach if Temp > 18	Current 19-day Model Predictions
Area	Hells Gate	Average	Average	pDBE	Predicted pDBE	Predicted pDBE	Predicted pDBE
20	Date	Temperature °C	Discharge m³/s				
19-Jul	29-Jul	19.7	2490	-0.36	-0.36	-0.46	-0.53
20-Jul	30-Jul	19.7	2467	-0.36	-0.36	-0.46	-0.53
21-Jul	31-Jul	19.7	2443	-0.36	-0.36	-0.46	-0.53
22-Jul	01-Aug	19.7	2418	-0.36	-0.36	-0.46	-0.53
23-Jul	02-Aug	19.7	2394	-0.36	-0.36	-0.46	-0.54
24-Jul	03-Aug	19.8	2366	-0.36	-0.36	-0.46	-0.54
25-Jul	04-Aug	19.9	2338	-0.36	-0.36	-0.46	-0.55
26-Jul	05-Aug	19.9	2307	-0.36	-0.36	-0.46	-0.56
* 27-Jul	06-Aug	19.9	2272	-0.36	-0.36	-0.46	-0.56
<b>Implied pMA</b>							
* 27-Jul	06-Aug	19.9	2272	0.56	0.56	0.85	1.27

\* Currently last day with 19 days of observed (10 days) and forecasted (9 days) Temp & Disch data.

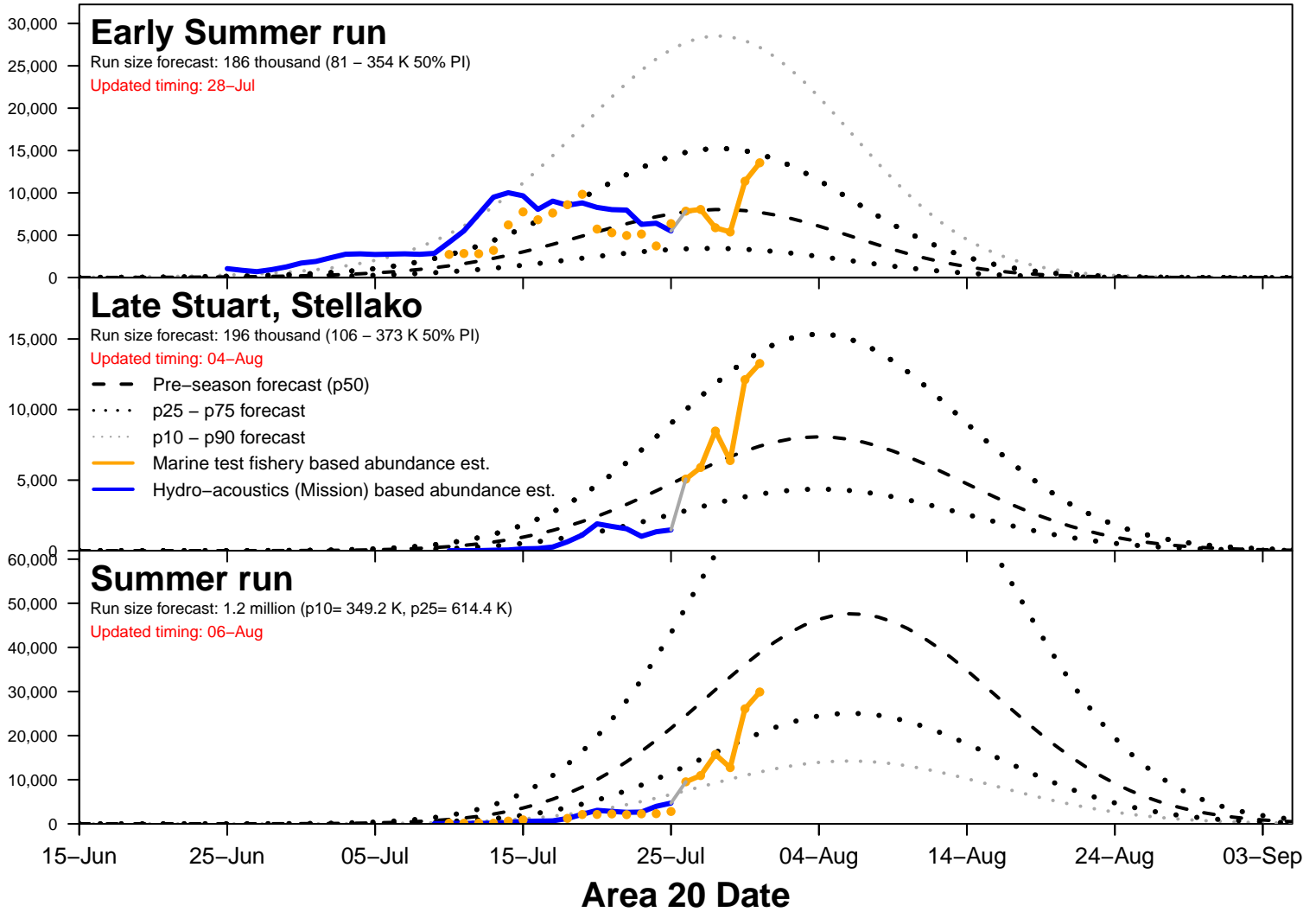
# 2023 Fraser River sockeye salmon daily migration

## Timing updated based on Timing Correlations



# 2023 Fraser River sockeye salmon daily migration

## Timing updated based on Timing Correlations



## 2023 Fraser River sockeye abundance en-route to Mission

Current date: 01-Aug

Area 20 date	Escapement past Mission through 31-Jul	Projected abundance en route to Mission based on marine test fishery data <sup>1,2</sup>								Escapement + projections through 06-Aug	
		26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	Total	80% PI <sup>3</sup>	10p	90p
Mission date		01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug				
<b>Total Fraser</b>	<b>221,600</b>	<b>16,900</b>	<b>33,300</b>	<b>7,200</b>	<b>25,500</b>	<b>23,000</b>	<b>67,500</b>	<b>173,400</b>	<b>98,900</b>	<b>285,900</b>	<b>395,000</b>
<b>Early Stuart</b>	<b>40,600</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>100</b>	<b>400</b>	<b>40,800</b>
<b>Early Summer Run</b>	<b>154,800</b>	<b>13,000</b>	<b>8,500</b>	<b>1,800</b>	<b>6,900</b>	<b>7,600</b>	<b>19,500</b>	<b>57,300</b>	<b>28,100</b>	<b>118,600</b>	<b>212,100</b>
Chilliwack	29,100	300	400	0	200	300	600	1,800	900	3,700	30,900
Pitt/Alouette/Coquitlam	17,600	3,300	2,200	200	1,100	1,600	3,900	12,300	6,000	25,500	29,900
Nadina group <sup>4</sup>	103,400	7,600	4,600	1,400	3,500	4,300	11,000	32,400	15,900	67,100	135,800
Early Thompson <sup>5</sup>	4,700	1,800	1,300	200	2,100	1,400	4,000	10,800	5,300	22,400	15,500
<b>Summer Run</b>	<b>25,800</b>	<b>3,800</b>	<b>23,200</b>	<b>5,300</b>	<b>18,100</b>	<b>14,400</b>	<b>45,200</b>	<b>110,000</b>	<b>67,100</b>	<b>158,400</b>	<b>135,800</b>
Harrison / Widgeon <sup>2</sup>	2,500	400	800	600	800	1,900	5,000	9,500	5,800	13,700	12,000
Late Stuart / Stellako	11,300	2,000	12,600	2,900	9,700	6,400	20,100	53,700	32,800	77,300	65,000
Chilko	8,900	1,000	8,200	1,300	5,400	5,400	18,100	39,400	24,000	56,700	48,300
Quesnel	2,800	400	1,600	500	2,200	700	2,000	7,400	4,500	10,700	10,200
Raft / North Thompson	300	0	0	0	0	0	0	0	0	0	300
<b>Late Run</b>	<b>400</b>	<b>100</b>	<b>1,400</b>	<b>100</b>	<b>500</b>	<b>1,000</b>	<b>2,800</b>	<b>5,900</b>	<b>3,600</b>	<b>8,500</b>	<b>6,300</b>

<sup>1</sup> En route catches are incomplete: catches from present and future fisheries must be deducted from projections and added to the catches removed

<sup>2</sup> Projected abundances en route to Mission include Harrison and Late runs, an uncertain number of which are expected to delay

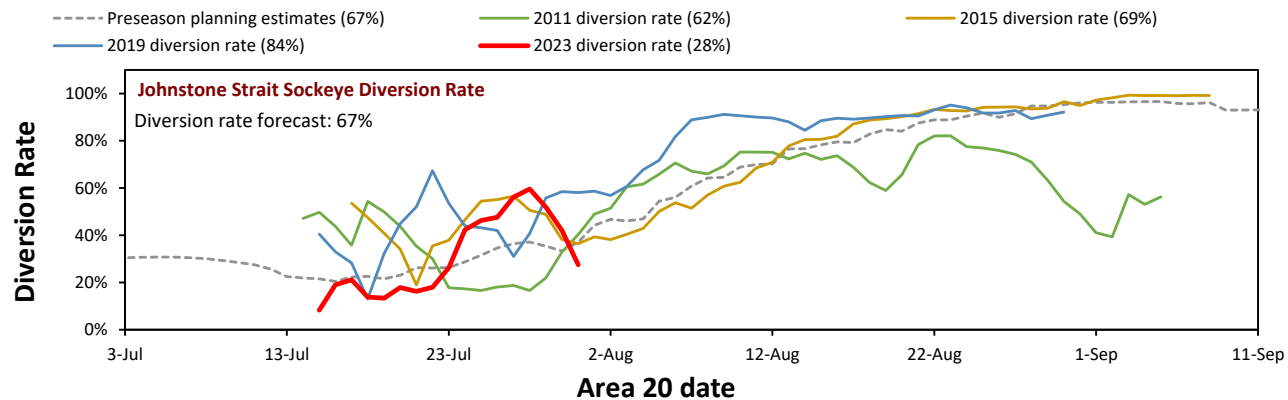
<sup>3</sup> 80% Probability Interval: there exists an 80% chance that the true abundance lies within this interval

<sup>4</sup> Nadina / Bowron / Gates / Nahatlatch / Taseko

<sup>5</sup> Early South Thompson / North Barriere

## 2023 Fraser River sockeye diversion rates through Johnstone Strait

	5-day-average
<b>Diversion rate</b>	<b>27%</b>



# 2023 Fraser River run size and timing estimates

The information presented on this page has been prepared by PSC Secretariat Staff. All in-season estimates of run size and timing should be considered draft preliminary estimates unless adopted by the Fraser River Panel.

Preseason forecasts, inseason estimates, and official estimates of run size and associated timing

	Run Size						Run size components			Run Timing <sup>1</sup>					
	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs <sup>2</sup>		Method	Catch + Escapement	6-day Projection <sup>3</sup>	Seaward Abundance	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs <sup>2</sup>		Method
				10% PI	90% PI								10% PI	90% PI	
<b>Early Stuart Run</b>	43,000	23,000	✓ 41,000	41,000	41,000	Recon	41,000	0	0	02-Jul	07-Jul	02-Jul	02-Jul	02-Jul	Recon
<b>Early Summer Run</b>	NA	186,000	▲ 228,000	178,000	282,000	Sum	158,000	37,000	33,000	NA	06-Aug	19-Jul	16-Jul	22-Jul	Weight
Chilliwack		2,000	● 31,000	30,000	32,000	Recon	29,000	2,000	0		20-Jul	05-Jul	04-Jul	05-Jul	Recon
Pitt/Nadina Group <sup>4</sup>		123,000	● 166,000	129,000	205,000	Model	123,000	24,000	19,000		05-Aug	19-Jul	18-Jul	22-Jul	Model
Early Thompson <sup>5</sup>		61,000	◇ 31,000	19,000	45,000	50% Date	6,000	11,000	14,000		09-Aug	31-Jul	25-Jul	06-Aug	Timing Corr.

<sup>1</sup> Run timing refers to the date when 50% of the run migrated past the Area 20 reference point.

<sup>2</sup> 80% Probability Interval: there exists an 80% chance that the true abundance lies within this interval

<sup>3</sup> Normally based on test fishery data. Based on Model if Method = Recon(2).

<sup>4</sup> Pitt / Alouette / Coquitlam / Nadina / Bowron / Gates / Nahatlatch / Taseko

<sup>5</sup> Early South Thompson / North Barriere.

**Methods for run size & timing estimation**

Model Run size assessment model (median)

Recon Catch + escapement + 6-day test fish projection + model seaward projection

50% Date Double the reconstructed abundance observed at the assumed 50% date

Sum Sum of individual groups

**Run Size Uncertainty Legend<sup>†</sup>**

- ✓ ≥ 95% of the run size has been accounted for in catch + escapement. Clear indication of run size; minor run size updates still expected
- ≥ 70% of the run size has been accounted for in catch + escapement. Good indication of run size; peak for the run has been observed at Mission, uncertainty relates to seaward abundance
- ▲ ≥ 50% of the run size has been accounted for in catch + escapement. Decent indication of run size; ≥ 50% confirmed at Mission
- ◇ < 50% of the run size has been accounted for in catch + escapement. Uncertain or early indication of run size based on marine data

<sup>†</sup> The Run Size Uncertainty Indicator is a categorical indication of the degree of uncertainty present in the run size estimate. Estimates are categorized quantitatively based on the proportion of the run that has been accounted for with high certainty in catch + escapement.

**Early Thompson run size based on timing**

<b>Catch+Escapement To Date:</b>	<b>5,000</b>		
<b>6-day projections:</b>	<b>11,000</b>		
	<b>Method</b>	<b>Run Size*</b>	<b>% Seaward of Mission</b>
Based on timing of 29-Jul	50% Date	21,000	76%
Based on timing of 31-Jul	50% Date	31,000	84%
Based on timing of 04-Aug	% Seaward	44,000	89%
Based on timing of 07-Aug	% Seaward	63,000	92%
Based on timing of 10-Aug	% Seaward	94,000	95%

\*Based on % seaward in 2011, 2015 and 2019 if timing is later than 31-Jul  
 \*Equal to double the reconstructed abundance if timing is earlier than 01-Aug

**Early Summer run size based on timing**

<b>Catch+Escapement To Date:</b>	<b>157,000</b>		
<b>6-day Projection:</b>	<b>37,000</b>		
	<b>Method</b>	<b>Run Size*</b>	<b>% Seaward</b>
Based on timing of 19-Jul	50% Date	226,000	31%
Based on timing of 20-Jul	50% Date	243,000	35%
Based on timing of 21-Jul	50% Date	262,000	40%
Based on timing of 22-Jul	50% Date	275,000	43%
Based on timing of 23-Jul	50% Date	291,000	46%

\*Based on % seaward in 2011, 2015 and 2019 if timing is later than 31-Jul  
 \*Equal to double the reconstructed abundance if timing is earlier than 01-Aug

