



Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-24

Report Period: 8/10 – 8/16, 2024

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SECTION 1. River Flow and Sampling Results

WEEK 24

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	115.2	144.6	128.3	130.2	141.2
B. Powerhouse 1	0.0	4.8	1.5	2.2	4.5
C. Powerhouse 2	53.2	77.6	64.7	66.4	39.4
D. Spill (kcfs)	54.6	55.0	54.8	54.7	89.9
% of River Flow	37.9	47.4	42.9	42.2	63.8
E. Water Temp *	70.1	71.8	71.0	71.6	72.2
F. % Saturation *					

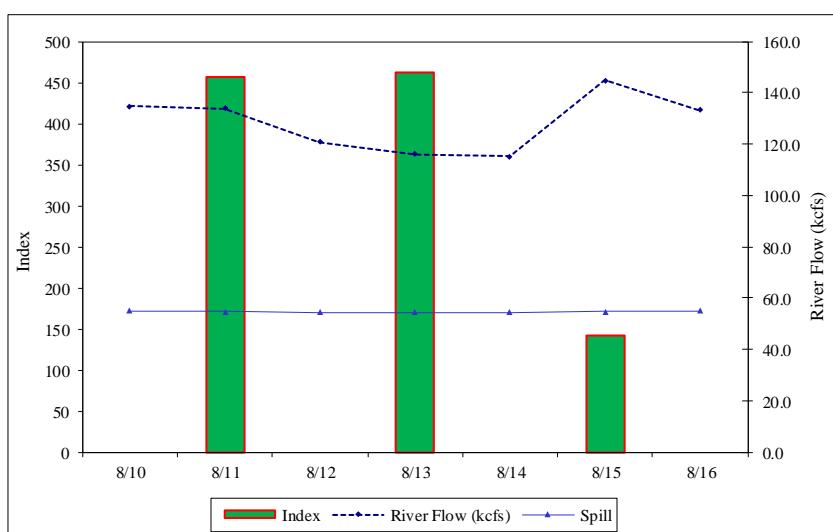
* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	2.1%	0.0%
SUBYEARLING CHINOOK	95.7%	100.0%
CHINOOK FRY	0.0%	0.0%
UNCLIPPED STEELHEAD	0.0%	0.0%
CLIPPED STEELHEAD	0.0%	0.0%
COHO	0.0%	0.0%
COHO FRY	0.0%	0.0%
SOCKEYE	2.1%	0.0%

YEARLING CHINOOK							SUBYEARLING CHINOOK							COHO						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index				
8/10	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
8/11	10.0%	1	0.0	0.0	10	18	23	0.0	0.0	230	420	0	0.0	0.0	0	0				
8/12	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
8/13	6.1%	0	0.0	0.0	0	0	14	0.0	0.0	230	463	0	0.0	0.0	0	0				
8/14	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
8/15	10.0%	0	0.0	0.0	0	0	8	0.0	0.0	80	141	0	0.0	0.0	0	0				
8/16	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0				
Weekly		1	0.0	0.0	10	18	45	0.0	0.0	540	1,024	0	0.0	0.0	0	0				
Season to date		14,439	2.6	0.6	615,017	2,468,619	23,041	0.9	1.5	622,882	1,745,138	3,012	1.1	0.5	138,748	553,457				

UNCLIPPED							STEELHEAD							CLIPPED							SOCKEYE						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index						
8/10	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
8/11	10.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	1	0.0	0.0	10	18	0	0.0	0.0	0	0						
8/12	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
8/13	6.1%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
8/14	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
8/15	10.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
8/16	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0						
Weekly		0	0.0	0.0	0	0	0	0.0	0.0	0	0	1	0.0	0.0	10	18											
Season to date		368	0.3	0.5	15,750	59,527	1,210	1.3	0.2	71,514	296,645	893	5.6	2.2	50,456	175,565											

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
8/10	0.0%	0	0.0	0.0	0	0
8/11	10.0%	25	0.0	0.0	250	456
8/12	0.0%	0	0.0	0.0	0	0
8/13	6.1%	14	0.0	0.0	230	463
8/14	0.0%	0	0.0	0.0	0	0
8/15	10.0%	8	0.0	0.0	80	141
8/16	0.0%	0	0.0	0.0	0	0
Weekly		47	0.0	0.0	560	1,060
Season to date		42,963	1.6	1.1	1,514,367	5,298,952



Notes: Condition percentages are calculated from sample numbers.
Subyearling chinook and coho include fry.

SECTION 2. Juvenile Lamprey Sampling Results

Juvenile lamprey are differentiated by species (Pacific or Western Brook lamprey) and by life stage (Macrophthalmia, the fully formed actively migrating juvenile, and Ammocoete, the blind, filter feeding larval stage). Weekly results and season to date totals are presented in the table below:

Macrophthalmia			Ammocoetes			Ammocoetes			
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
8/10	0	0.0	0	0	0.0	0	0	0	0
8/11	0	0.0	0	0	0.0	0	0	0	0
8/12	0	0.0	0	0	0.0	0	0	0	0
8/13	0	0.0	0	0	0.0	0	0	0	0
8/14	0	0.0	0	0	0.0	0	0	0	0
8/15	0	0.0	0	0	0.0	0	0	0	0
8/16	0	0.0	0	0	0.0	0	0	0	0
Weekly	0	0.0	0	0	0.0	0	0	0	0
Season to date	201	2.5	3,036	6	0.0	36	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

		DESCALING			INJURY					Other Conditions				
Subyearling		SAMPLE #	3-19%	>20%	Pred. Desc.	BODY	EYE	HEAD	OP	FIN	POPEYE	PINK FIN	Fin Discolor.	FIN HEM
Chinook		45												2.2%
This Week		63	1.6%					1.6%		4.8%	1.6%			1.6%
Last Week														

		DISEASE						PREDATION					
		SAMPLE #	Columnaris	FUNGUS	BKD	PARASITES	DEFORMITY	EYE	HEM	BIRD	FISH	LAMPREY	OTH
This Week		45					11.1%						
Last Week		63					3.2%		1.6%				

Juvenile Lamprey Condition

SECTION 4. Incidental Summary

Week 24

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	2	0	1	1	0	0	0
Season to Date	0	60	11	3	4	1	0	0
	Dace - Longnose	Dace - Speckled	Chinook Jack	Kokanee	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week	0	0	0	0	0	0	106	0
Season to Date	0	0	1	0	2	16	1,107	82
	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	4	1	0	10	72,661	0
Season to Date	0	0	41	51	4	236	175,360	0
	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn		Other/Not Listed
This Week	0	0	0	0	0	0	0	0
Season to Date	0	0	0	0	0	187	0	59

*Other/Not Listed Season-to-Date totals include: 52 Banded killifish and seven Pink salmon fry.

SECTION 5. PIT Tag Summary

Bonneville season to date detections, 2024.

Migration Year	Chinook	Coho	Steelhead	Sockeye	Cutthroat	Pacific Lamprey	Other	Orphan/ Unknown	Grand Total
2020			2				1		3
2021	3		41				1		45
2022	5		102	1			2		110
2023	697	7	697						1,401
2024	40,394	3,350	19,241	2,408	7		6	5,218	65,406
Grand Total	41,099	3,357	20,083	2,409	7	0	10	5,218	72,183

SECTION 6. Facility Operations

Sample collections at the Smolt Monitoring Facility (SMF) began at 0700 on 2 March. Debris at the primary dewatering structure (PDS) and fish/debris separator was light to moderate consisting mostly of aquatic macrophytes, a few sticks and dead adult American shad. The Outfall hydro-cannons are operating.

Higher temperature sampling protocols continued throughout the week as daily average river temperatures remained above 70°F. Modified sampling during higher temperatures means Index/Condition sampling will take place every other day until the daily average descends to 69.5°F. Sample and bypass mode will occur on alternating 24-hour periods (0700-0700).

Gas Bubble Trauma (GBT) examinations were terminated for the season due to current high river temperatures, low TDG levels and inability to meet the 50 fish minimum sample size criteria. The final GBT collection effort occurred on 4 August. Please follow this link <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further details.

Non-salmonid GBT Monitoring has concluded in conjunction with the end of salmonid GBT monitoring. Please follow this link https://www.fpc.org/currentdaily/Summer_NS_gbtsumbybatchdate_realtime.pdf to the FPC web page for specific details.

Truck releases of summer/fall out-migrants originating from Little Goose and Lower Granite dams began at Bonneville on 3 August and occur every other day.

No fallbacks were observed this week.

SECTION 7. Research

No Pacific Lamprey macrourhalmia or ammocoetes were sampled at the Bonneville Smolt Monitoring Facility during this report week.

SECTION 8. Sampling Pictures



Yellow bullhead (*Ameiurus natalis*), approx. 95mm, similar to one sampled on 13 August, 2024, at Bonneville SMF.