



Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-13

Report Period: 5/25 – 5/31, 2024

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SECTION 1. River Flow and Sampling Results

WEEK 13

	Min	Max	Mean			% SAMPLE COMPOSITION	This Week	Last Week
			Current	Last Week	2023			
A. River Flow	177.5	214.7	196.8	234.2	319.1	YEARLING CHINOOK	23.4%	61.7%
B. Powerhouse 1	0.0	0.1	0.0	0.1	53.0	SUBYEARLING CHINOOK	43.2%	10.5%
C. Powerhouse 2	32.6	51.9	40.0	72.7	102.7	CHINOOK FRY	1.5%	0.8%
D. Spill (kfcfs)	137.3	155.4	149.4	153.9	156.1	UNCLIPPED STEELHEAD	1.9%	2.0%
% of River Flow	72.4	78.9	76.0	65.8	49.5	CLIPPED STEELHEAD	2.5%	3.4%
E. Water Temp *	58.2	58.9	58.5	58.1	59.3	COHO	12.4%	10.3%
F. % Saturation *						COHO FRY	0.0%	0.0%

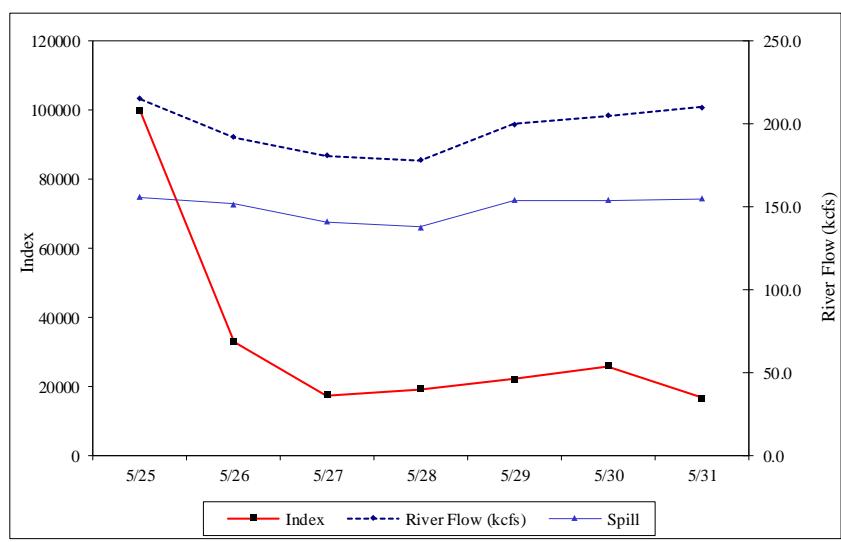
* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	23.4%	61.7%
SUBYEARLING CHINOOK	43.2%	10.5%
CHINOOK FRY	1.5%	0.8%
UNCLIPPED STEELHEAD	1.9%	2.0%
CLIPPED STEELHEAD	2.5%	3.4%
COHO	12.4%	10.3%
COHO FRY	0.0%	0.0%
SOCKEYE	15.2%	11.3%

YEARLING CHINOOK						SUBYEARLING CHINOOK						COHO					
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	
5/25	1.0%	104	6.8	1.0	10,400	41,540	40	2.5	0.0	4,000	15,977	31	0.0	0.0	3,100	12,382	
5/26	4.4%	142	4.3	1.4	2,640	14,765	62	0.0	0.0	1,826	10,212	30	3.3	0.0	564	3,154	
5/27	2.0%	13	0.0	0.0	650	3,451	24	4.2	0.0	1,200	6,372	6	0.0	0.0	300	1,593	
5/28	5.0%	23	4.3	0.0	460	2,391	98	0.0	1.0	1,960	10,190	15	0.0	0.0	300	1,560	
5/29	8.0%	54	0.0	0.0	520	2,583	205	0.5	0.0	2,612	12,972	29	0.0	0.0	340	1,689	
5/30	7.0%	48	2.1	0.0	686	3,107	205	2.4	0.0	2,928	13,260	66	3.0	0.0	943	4,271	
5/31	7.0%	33	0.0	0.0	471	2,001	161	1.9	0.6	2,300	9,770	43	7.0	0.0	614	2,608	
Weekly		417	3.6	0.7	15,827	69,837	795	1.4	0.3	16,826	78,753	220	2.7	0.0	6,161	27,256	
Season to date		14,215	2.5	0.6	610,005	2,453,015	10,790	0.1	1.7	124,167	333,611	2,568	1.1	0.5	128,815	522,750	

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
5/25	1.0%	2	0.0	0.0	200	799	8	0.0	0.0	800	3,195	64	9.7	3.1	6,400	25,563	14	7.1	0.0	621	3,473
5/26	4.4%	7	0.0	0.0	35	196	5	0.0	0.0	163	912	16	12.5	0.0	800	4,248	37	0.0	0.0	740	3,847
5/27	2.0%	3	0.0	0.0	150	796	3	0.0	0.0	150	796	37	0.0	0.0	84	417	51	5.9	0.0	700	3,476
5/28	5.0%	4	0.0	0.0	80	416	5	0.0	0.0	100	520	64	6.5	3.1	914	4,139	25	9.1	12.0	357	1,517
5/29	8.0%	11	0.0	9.1	172	854	5	0.0	0.0	84	417	271	6.8	2.6	10,532	46,263	3	0.0	0.0	129	548
5/30	7.0%	3	0.0	0.0	43	195	10	0.0	0.0	143	648	650	5.3	2.0	44,534	157,554	1,4394	0.3	0.3	69,772	291,168
5/31	7.0%	3	0.0	0.0	43	183	9	0.0	0.0	129	548	291,168	0.0	0.0	0.0	0.0	291,168	0.0	0.0	0.0	0.0
Weekly		33	0.0	3.0	723	3,439	45	0.0	0.0	1,569	7,036	271	6.8	2.6	10,532	46,263	304	0.3	0.3	69,772	291,168
Season to date		304	0.3	0.3	14,394	55,287	1,143	1.3	0.2	69,772	291,168	650	5.3	2.0	44,534	157,554	29,670	1.5	1.0	991,687	3,813,384

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
5/25	1.0%	249	5.7	1.2	24,900	99,456
5/26	4.4%	260	3.1	0.8	5,849	32,712
5/27	2.0%	65	4.6	0.0	3,250	17,257
5/28	5.0%	182	0.6	0.5	3,640	18,924
5/29	8.0%	355	1.1	0.3	4,428	21,991
5/30	7.0%	396	3.0	0.5	5,657	25,619
5/31	7.0%	274	3.0	1.5	3,914	16,626
Weekly		1,781	2.8	0.7	51,638	232,585
Season to date		29,670	1.5	1.0	991,687	3,813,384



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 (Macropterus, 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:

WEEK 13

Macrophthalmia				Ammocoetes			Ammocoetes		
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
5/25	1	0.0	100	0	0.0	0	0	0	0
5/26	0	0.0	0	0	0.0	0	0	0	0
5/27	0	0.0	0	0	0.0	0	0	0	0
5/28	0	0.0	0	0	0.0	0	0	0	0
5/29	0	0.0	0	0	0.0	0	0	0	0
5/30	0	0.0	0	0	0.0	0	0	0	0
5/31	3	0.0	43	0	0.0	0	0	0	0
Weekly	4	0.0	143	0	0.0	0	0	0	0
Season to date	166	3.0	1,927	2	0.0	10	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

Juvenile Lamprey Condition

SECTION 4. Incidental Summary

Week 13

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	1	0	0	0	0	0	0
Season to Date	0	11	11	2	0	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	3	2
Season to Date	0	0	0	0	0	4	16	75
	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	2	0	0	0	0
Season to Date	0	0	5	49	2	0	0	0
	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn		Other/Not Listed
This Week	0	0	0	0	0	1	0	0
Season to Date	0	0	0	0	0	170	0	41

*Other/Not listed in Season-to-Date totals include: 34 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			1				1		2
2021	2		34						36
2022	1		79				1		81
2023	363	6	556						925
2024	31,666	2,277	16,693	2,311	2			7,231	52,949 7,231
Grand Total	32,032	2,283	17,363	2,311	2	0	2	7,231	61,224

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 ranged from light to moderate consisting mostly of aquatic macrophytes, sticks and other woody debris. The Outfall hydro-cannons are operating.

Gas Bubble Trauma (GBT) examinations began on 13 April and are typically performed two days per week through the end of spill. Results of this week's Gas Bubble Trauma (GBT) examinations: 134 combined yearling Chinook and steelhead examined: two fish (1.5%) were observed with GBT symptoms. Please follow this link <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further details.

Fallbacks observed this week: four steelhead and one salmon.

SECTION 7. Research

A total of four fin clips were obtained from Pacific Lamprey *macrophthalmia* for Columbia River Inter-Tribal Fish Commission's genetic studies.

SECTION 8. Sampling Pictures



Yellow perch (*Perca flavescens*), approximately 110mm fork length, similar to one sampled on 29 May 2024, at Bonneville Smolt Monitoring Facility.