

# Pacific States Marine Fisheries Commission

## Bonneville Smolt Monitoring Weekly Report, #24-15

Report Period: 6/8 – 6/14, 2024

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### SECTION 1. River Flow and Sampling Results

#### WEEK 15

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	219.4	261.5	235.8	226.9	196.4
B. Powerhouse 1	0.0	6.7	1.1	1.5	0.2
C. Powerhouse 2	56.0	94.1	73.0	63.4	42.2
D. Spill (kcfs)	152.6	155.5	154.3	154.7	146.6
% of River Flow	58.6	70.8	65.7	69.0	75.1
E. Water Temp *	60.3	61.6	60.9	59.2	63.3
F. % Saturation *					

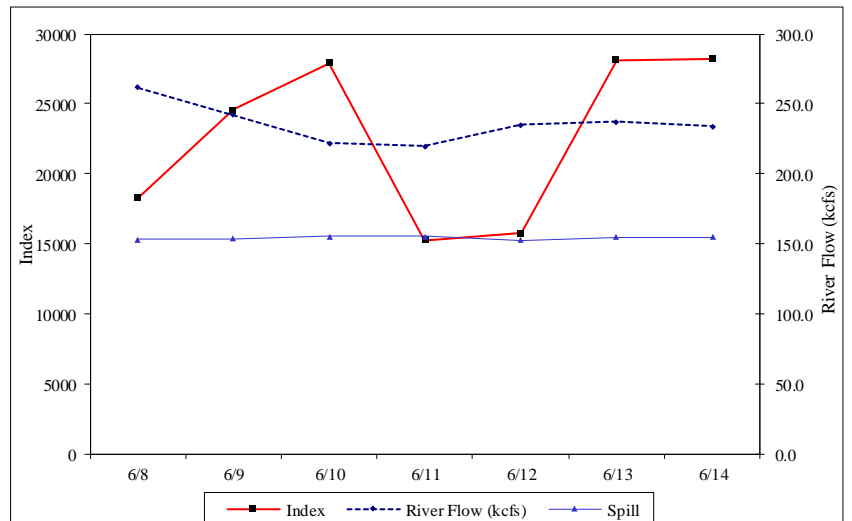
\* In sampling facility.

% SAMPLE COMPOSITION	This Week Last Week	
YEARLING CHINOOK	3.4%	6.6%
SUBYEARLING CHINOOK	83.3%	64.3%
CHINOOK FRY	0.8%	2.6%
UNCLIPPED STEELHEAD	1.3%	2.1%
CLIPPED STEELHEAD	1.6%	1.1%
COHO	5.3%	15.9%
COHO FRY	0.1%	0.0%
SOCKEYE	4.2%	7.5%

YEARLING CHINOOK							SUBYEARLING CHINOOK					COHO				
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
6/8	4.0%	8	0.0	0.0	200	540	208	1.0	1.0	5,200	14,042	29	0.0	0.0	725	1,958
6/9	3.6%	14	7.1	0.0	332	966	257	4.4	1.9	7,146	20,800	19	0.0	0.0	444	1,292
6/10	4.0%	8	14.3	12.5	200	729	262	4.3	3.1	6,550	23,872	15	0.0	0.0	375	1,367
6/11	3.0%	5	0.0	0.0	167	632	103	0.0	0.0	3,434	13,000	6	16.7	0.0	200	757
6/12	5.6%	19	0.0	0.0	281	853	236	1.3	0.0	4,171	12,658	16	0.0	0.0	270	819
6/13	4.0%	8	25.0	0.0	200	613	320	1.6	1.3	8,000	24,512	12	0.0	0.0	300	919
6/14	3.2%	5	0.0	0.0	150	473	254	2.4	0.8	7,958	25,115	7	0.0	0.0	217	685
Weekly		67	6.1	1.5	1,530	4,806	1,640	2.3	1.3	42,459	133,998	104	1.0	0.0	2,531	7,797
Season to date		14,387	2.6	0.6	613,258	2,464,025	13,501	0.5	1.6	187,545	540,858	2,927	1.1	0.5	136,216	546,933

End Date	Sample Rate	UNCLIPPED STEELHEAD					CLIPPED					SOCKEYE				
		# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
6/8	4.0%	6	0.0	0.0	150	405	3	0.0	0.0	75	203	17	0.0	0.0	425	1,148
6/9	3.6%	6	0.0	0.0	208	605	2	0.0	0.0	100	291	7	0.0	0.0	212	617
6/10	4.0%	2	0.0	0.0	50	182	7	0.0	0.0	175	638	12	8.3	0.0	300	1,093
6/11	3.0%	0	0.0	0.0	0	0	3	0.0	0.0	100	379	4	0.0	0.0	133	504
6/12	5.6%	5	0.0	0.0	108	328	3	0.0	0.0	100	303	15	0.0	0.0	265	804
6/13	4.0%	4	0.0	0.0	100	306	9	0.0	0.0	225	689	14	7.1	0.0	350	1,072
6/14	3.2%	2	0.0	0.0	50	158	5	0.0	0.0	158	499	13	8.3	7.7	417	1,316
Weekly		25	0.0	0.0	666	1,985	32	0.0	0.0	933	3,001	82	3.7	1.2	2,102	6,554
Season to date		363	0.3	0.6	15,643	59,215	1,192	1.3	0.2	71,041	295,313	853	5.6	2.3	48,890	171,694

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
6/8	4.0%	271	0.7	0.7	6,775	18,295
6/9	3.6%	305	4.0	1.6	8,442	24,572
6/10	4.0%	306	4.4	2.9	7,650	27,881
6/11	3.0%	121	0.8	0.0	4,034	15,272
6/12	5.6%	294	1.0	0.0	5,195	15,765
6/13	4.0%	367	2.2	1.1	9,175	28,112
6/14	3.2%	286	2.5	1.0	8,950	28,246
Weekly		1,950	2.4	1.2	50,221	158,142
Season to date		33,223	1.6	1.0	1,072,593	4,078,038



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:

**WEEK 15**

**Pacific Lamprey**

**Western Brook**

End Date	Macrophthalmia			Ammocoetes			Ammocoetes		
	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
6/8	2	0.0	50	0	0.0	0	0	0	0
6/9	1	0.0	4	1	0.0	4	0	0	0
6/10	0	0.0	0	0	0.0	0	0	0	0
6/11	3	0.0	100	0	0.0	0	0	0	0
6/12	1	0.0	33	0	0.0	0	0	0	0
6/13	0	0.0	0	0	0.0	0	0	0	0
6/14	0	0.0	0	0	0.0	0	0	0	0
Weekly	7	0.0	187	1	0.0	4	0	0	0
Season to date	186	2.7	2,396	3	0.0	14	0	0	0

## SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

### Smolt Condition

**WEEK 15**

		Yearling Chinook		Subyearling Chinook		Unclipped Steelhead		Clipped Steelhead		Coho		Sockeye	
		This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week	This Week	Last Week
SAMPLE#		66	105	702	571	25	33	32	17	103	254	81	115
DESCALING	3-19%	12.1%	15.2%	3.3%	0.9%	4.0%	3.0%	15.6%	17.6%	5.8%	7.1%	7.4%	20.9%
	>20%	6.1%	2.9%	3.8%	1.2%					1.0%	0.8%	3.7%	8.7%
	Pred. Desc.				0.2%				5.9%				
INJURY	BODY	4.5%	1.9%	1.4%	1.2%	4.0%		18.8%		1.9%	0.4%		
	EYE									1.0%			
	HEAD			0.1%									
	OPERC.		1.0%	0.6%	0.4%			3.1%	5.9%	1.0%	0.8%	3.7%	0.9%
	FIN	3.0%	3.8%	0.9%	1.2%		3.0%	3.1%		2.9%	1.2%	2.5%	2.6%
	POPEYE		1.0%										
OTHER CONDITIONS	PINK FIN												
	Fin Discolor.												
	FIN HEM.	1.5%	1.0%	1.3%	1.1%					1.0%		1.2%	
DISEASE	Columnaris									1.0%			
	FUNGUS												
	BKD												
	PARASITES						3.0%			2.9%	0.8%		
	DEFORMITY												
	EYE HEM.		1.0%	0.1%									
PREDATION	BIRD	1.5%		0.1%	0.2%	4.0%		6.3%	11.8%	1.9%	0.4%		0.9%
	FISH	1.5%	1.0%	1.1%	1.1%	4.0%		3.1%		1.9%	0.4%		
	LAMPREY												
	OTHER												
end dates		6/14	6/7										

### Juvenile Lamprey Condition

**Week 15**

			INJURY					DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophthalmia	End Date	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN HEM	Columnaris	FUNGUS	DEFORMITY	EYE HEM.	BIRD	FISH
This Week	6/14	7	14.3%											
Last Week	6/7	13											23.1%	
AP - Ammocoetes	End Date	SAMPLE #												
This Week	6/14	1												
Last Week	6/7	0												

## SECTION 4. Incidental Summary

### Week 15

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	0	0	0	0	0	0	0
Season to Date	0	13	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	3	0	2
Season to Date	0	0	0	0	2	11	19	80

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	2	0	0	0	2	0
Season to Date	0	0	9	49	2	1	2	0

	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn		Other/Not Listed
This Week	0	0	0	0	0	3	0	1
Season to Date	0	0	0	0	0	178	0	42

\*Other/Not listed in Season-to-Date totals include: 35 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		38				1		41
2022	2		93				1		96
2023	669	7	652						1,328
2024	33,916	2,753	17,863	2,357	7		5		56,901
								7,074	7,074
Grand Total	34,589	2,760	18,647	2,357	7	0	8	7,074	65,442

## 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: 200 combined yearling Chinook, subyearling Chinook and steelhead examined: four fish (2.0%) 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: one steelhead and one unknown salmonid.

## **SECTION 7. Research**

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

## **SECTION 8. Sampling Pictures**



Juvenile American Shad (*Alosa sapidissima*), approximately 100mm fork length, sampled at Bonneville Smolt Monitoring Facility on 12 June, 2024.