



# Pacific States Marine Fisheries Commission

## Bonneville Smolt Monitoring Weekly Report, #24-9

Report Period: 4/27 – 5/3, 2024

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### SECTION 1. River Flow and Sampling Results

#### WEEK 9

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	159.4	189.4	171.8	184.4	198.5
B. Powerhouse 1	0.0	0.0	0.0	0.0	2.8
C. Powerhouse 2	33.5	40.0	36.8	36.9	48.4
D. Spill (kcfcs)	117.3	142.0	127.6	140.1	140.0
% of River Flow	71.8	76.2	74.2	75.9	72.0
E. Water Temp *	53.3	53.6	53.4	52.6	52.4
F. % Saturation *					

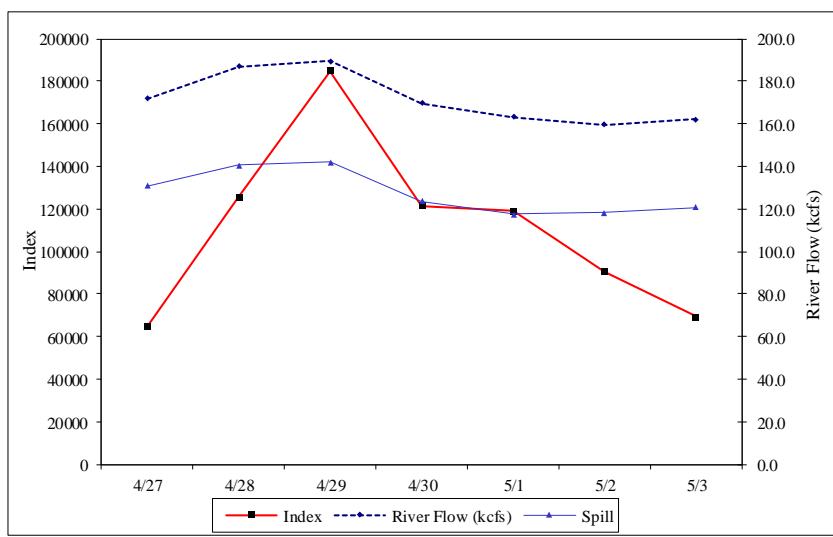
\* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	72.3%	82.8%
SUBYEARLING CHINOOK	0.6%	2.1%
CHINOOK FRY	0.3%	0.8%
UNCLIPPED STEELHEAD	1.3%	0.6%
CLIPPED STEELHEAD	10.8%	3.4%
COHO	14.6%	10.2%
COHO FRY	0.0%	0.0%
SOCKEYE	0.1%	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	
4/27	1.0%	102	0.0	1.0	10,200	50,026	2	0.0	0.0	200	981	14	0.0	0.0	1,400	6,866	
4/28	1.7%	390	4.1	0.3	20,950	96,124	2	0.0	0.0	105	482	44	0.0	0.0	3,450	15,829	
4/29	1.5%	402	2.8	1.2	26,800	121,940	2	0.0	0.0	134	610	131	0.0	0.0	8,733	39,735	
4/30	1.0%	190	1.6	0.5	19,000	79,477	0	0.0	0.0	0	0	49	0.0	0.0	4,900	20,497	
5/1	2.1%	490	3.1	0.4	20,975	84,715	7	0.0	0.0	35	141	76	0.0	1.3	5,035	20,336	
5/2	1.0%	136	1.5	1.5	13,600	61,160	1	0.0	0.0	100	450	29	3.4	0.0	2,900	13,041	
5/3	1.4%	130	0.0	0.0	9,234	42,236	7	0.0	0.0	534	2,442	28	0.0	0.0	1,900	8,691	
Weekly		1,840	2.6	0.7	120,759	535,677	21	0.0	0.0	1,108	5,106	371	0.3	0.3	28,318	124,995	
Season to date		8,390	1.3	0.3	271,989	1,225,800	9,453	0.0	1.8	68,371	123,522	1,055	0.9	0.8	45,840	206,411	

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		
4/27	1.0%	1	0.0	0.0	100	490	13	0.0	0.0	1,300	6,376	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
4/28	1.7%	0	0.0	0.0	0	0	34	0.0	0.0	2,830	12,985	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
4/29	1.5%	14	7.1	0.0	933	4,245	60	0.0	0.0	4,000	18,200	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
4/30	1.0%	7	0.0	0.0	700	2,928	44	0.0	0.0	4,400	18,405	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
5/1	2.1%	4	0.0	0.0	210	848	47	0.0	0.0	3,085	12,460	2	0.0	0.0	105	424	0	0.0	0.0	0	0		
5/2	1.0%	1	0.0	0.0	100	450	34	0.0	0.0	3,400	15,290	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
5/3	1.4%	7	0.0	0.0	467	2,136	44	2.3	0.0	3,000	13,722	0	0.0	0.0	0	0	0	0.0	0.0	0	0		
Weekly		34	2.9	0.0	2,510	11,098	276	0.4	0.0	22,015	97,437	2	0.0	0.0	105	424	0	0.0	0.0	0	0		
Season to date		111	0.9	0.0	3,783	16,189	411	0.7	0.0	27,257	122,052	8	0.0	0.0	155	571	0	0.0	0.0	0	0		

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
4/27	1.0%	132	0.0	0.8	13,200	64,739
4/28	1.7%	470	3.4	0.2	27,335	125,419
4/29	1.5%	609	2.0	0.8	40,600	184,730
4/30	1.0%	290	1.0	0.3	29,000	121,307
5/1	2.1%	626	2.4	0.5	29,445	118,924
5/2	1.0%	201	1.5	1.0	20,100	90,391
5/3	1.4%	216	0.5	0.0	15,135	69,227
Weekly		2,544	2.0	0.5	174,815	774,737
Season to date		19,428	0.6	1.1	417,395	1,694,546



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

## Chum Sampling Results

Combined CHUM SMOLT and FRY*						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
4/27	1.0%	0	0.0	0.0	0	0
4/28	1.7%	0	0.0	0.0	0	0
4/29	1.5%	0	0.0	0.0	0	0
4/30	1.0%	2	0.0	0.0	200	837
5/1	2.1%	0	0.0	0.0	0	0
5/2	1.0%	0	0.0	0.0	0	0
5/3	1.4%	0	0.0	0.0	0	0
Weekly		2	0.0	0.0	200	837
Season to date		247	0.0	0.8	1,690	3,094

\*Both Chum sampled this week were smolt.

## 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 9**

End Date	Pacific Lamprey			Western Brook		
	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
4/27	0	0.0	0	0	0.0	0
4/28	0	0.0	0	0	0.0	0
4/29	0	0.0	0	0	0.0	0
4/30	0	0.0	0	0	0.0	0
5/1	0	0.0	0	0	0.0	0
5/2	0	0.0	0	0	0.0	0
5/3	0	0.0	0	0	0.0	0
Weekly	0	0.0	0	0	0.0	0
Season to date	151	3.3	945	2	0.0	10

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

### Smolt Condition

WEEK 9	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 #	709	711	0	0	34	22	276	109	339	327	2	0
DESCALING	3-19%	6.2%	2.3%			9.1%	8.0%	12.8%	2.1%	3.1%		
	>20%	2.5%	1.8%			2.9%	0.4%	0.9%	0.3%	1.8%		
Pred. Desc.												
INJURY	BODY	1.7%	1.1%			2.9%	3.6%	4.6%	0.3%	0.9%		
	EYE	0.3%	0.1%								0.3%	
	HEAD											
	OPERC.	0.7%					2.9%	4.6%	0.6%	1.2%		
	FIN	1.0%	1.5%			4.5%	1.8%	2.8%	1.8%	2.1%		
	POPEYE	0.1%										
OTHER CONDITIONS	PINK FIN											
	Fin Discolor.											
	FIN HEM.	0.3%	0.4%								0.3%	
DISEASE	Columnaris						0.7%				0.9%	
	FUNGUS											
	BKD	0.3%										
	PARASITES	0.1%					0.4%				0.3%	
	DEFORMITY											
	EYE HEM.	0.4%	0.4%								0.3%	
PREDATION	BIRD	0.4%	0.3%			4.5%	2.9%	4.6%	1.2%			
	FISH	0.1%	0.1%				0.4%	0.9%	0.3%			
	LAMPREY											
	OTHER											

end dates

5/3

4/26

## Juvenile Lamprey Condition

Week 9			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
	5/3	0												
AP - Ammocoetes	4/26	4												25.0%
This Week	5/3	0												
Last Week	4/26	0												

## SECTION 4. Incidental Summary

Week 9	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	0	1	0	0	0	0	0
Season to Date	0	8	10	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	0	1
Season to Date	0	0	0	0	0	4	11	67
	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	0	0	0	0
Season to Date	0	0	5	45	1	0	0	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	168	0	39

\*Other/Not listed in Season-to-Date totals include: 32 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
2021	2		24						26
2022	1		34						35
2023	189		158						347
2024	11,561	104	6,197						17,862
								4,146	4,146
Grand Total	11,753	104	6,414	0	0	0	0	4,146	22,417

## **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 consisting mostly of 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 and steelhead were examined with no GBT symptoms observed. Please follow this link <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further details.

Fallbacks observed this week: 13 steelhead and two salmon.

## **SECTION 7. Research**

No juvenile Pacific lamprey were present in samples this week for Columbia River Inter-Tribal Fish Commission's genetic studies.

## **SECTION 8. Sampling Pictures**



Elastomer tag (left eye, red) on adipose clipped, Yearling Chinook this week.