

Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-10

Report Period: 5/4 – 5/10, 2024

Project Manager: Allan Martin

Prepared By: Dean Ballinger



SECTION 1. River Flow and Sampling Results

WEEK 10

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	144.7	174.6	164.9	171.8	345.5
B. Powerhouse 1	0.0	0.0	0.0	0.0	80.9
C. Powerhouse 2	33.2	39.8	36.2	36.8	103.3
D. Spill (kcfs)	103.5	130.9	121.2	127.6	153.9
% of River Flow	71.5	76.4	73.5	74.2	44.6
E. Water Temp *	53.5	54.5	53.9	53.4	54.2
F. % Saturation *					

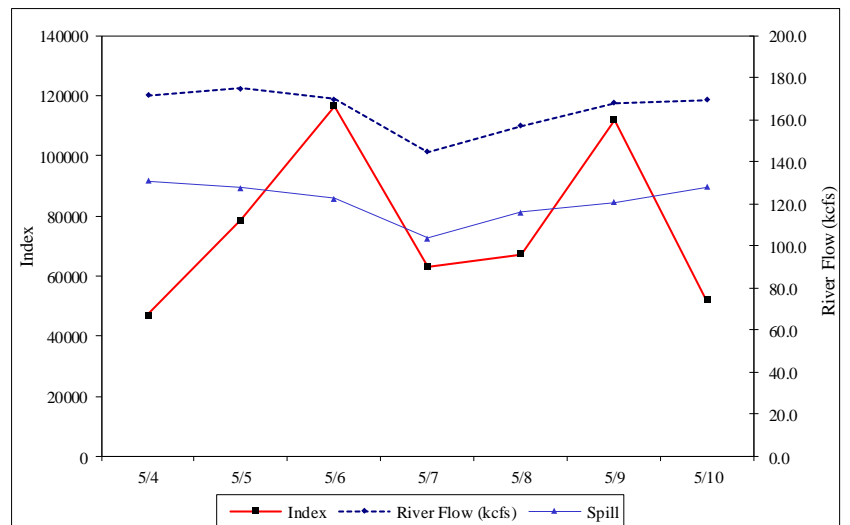
* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	62.7%	72.3%
SUBYEARLING CHINOOK	1.2%	0.6%
CHINOOK FRY	0.4%	0.3%
UNCLIPPED STEELHEAD	1.4%	1.3%
CLIPPED STEELHEAD	10.9%	10.8%
COHO	23.2%	14.6%
COHO FRY	0.0%	0.0%
SOCKEYE	0.1%	0.1%

YEARLING CHINOOK							SUBYEARLING CHINOOK					COHO				
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
5/4	2.0%	126	5.6	0.0	6,300	31,139	4	0.0	0.0	200	989	23	0.0	0.0	1,150	5,684
5/5	2.3%	305	8.5	0.0	11,108	46,900	4	0.0	0.0	304	1,284	69	2.9	0.0	3,924	16,568
5/6	2.0%	313	5.8	1.6	15,650	64,062	7	0.0	0.0	350	1,433	164	0.6	0.0	8,200	33,566
5/7	1.5%	134	0.8	0.7	8,934	36,372	8	0.0	12.5	534	2,174	42	0.0	0.0	2,800	11,399
5/8	1.5%	139	5.8	0.7	9,267	41,016	4	0.0	0.0	267	1,182	64	0.0	0.0	4,267	18,886
5/9	2.3%	409	7.7	1.2	17,815	71,797	8	0.0	0.0	515	2,076	170	1.8	0.6	6,645	26,780
5/10	1.0%	71	2.9	1.4	7,100	33,788	4	0.0	0.0	400	1,904	22	0.0	0.0	2,200	10,469
Weekly		1,497	6.3	0.9	76,174	325,075	39	0.0	2.6	2,570	11,040	554	1.1	0.2	29,186	123,353
Season to date		9,887	2.0	0.4	348,163	1,550,876	9,492	0.0	1.8	70,941	134,562	1,609	0.9	0.6	75,026	329,765

End Date	Sample Rate	UNCLIPPED STEELHEAD					CLIPPED STEELHEAD					SOCKEYE				
		# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
5/4	2.0%	4	0.0	0.0	200	989	33	3.0	0.0	1,650	8,156	0	0.0	0.0	0	0
5/5	2.3%	4	0.0	0.0	112	473	46	2.2	0.0	3,064	12,937	1	0.0	0.0	100	422
5/6	2.0%	13	0.0	0.0	650	2,661	71	0.0	0.0	3,550	14,532	1	0.0	0.0	50	205
5/7	1.5%	6	0.0	0.0	400	1,628	42	2.4	0.0	2,800	11,399	0	0.0	0.0	0	0
5/8	1.5%	4	0.0	0.0	266	1,177	17	0.0	5.9	1,133	5,015	0	0.0	0.0	0	0
5/9	2.3%	2	0.0	0.0	200	806	40	0.0	0.0	2,480	9,995	1	0.0	0.0	100	403
5/10	1.0%	1	0.0	0.0	100	476	11	9.1	0.0	1,100	5,235	0	0.0	0.0	0	0
Weekly		34	0.0	0.0	1,928	8,210	260	1.5	0.4	15,777	67,268	3	0.0	0.0	250	1,030
Season to date		145	0.7	0.0	5,711	24,399	671	1.0	0.1	43,034	189,320	11	0.0	0.0	405	1,601

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
5/4	2.0%	190	4.2	0.0	9,500	46,956
5/5	2.3%	429	6.8	0.0	18,612	78,584
5/6	2.0%	569	3.4	0.9	28,450	116,458
5/7	1.5%	232	0.9	0.9	15,468	62,974
5/8	1.5%	228	3.5	0.9	15,200	67,276
5/9	2.3%	630	5.4	1.0	27,755	111,857
5/10	1.0%	109	2.8	0.9	10,900	51,871
Weekly		2,387	4.3	0.7	125,885	535,976
Season to date		21,815	1.0	1.0	543,280	2,230,522



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

Chum Sampling Results

Combined CHUMSMOLT and FRY

End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
5/4	2.0%	0	0.0	0.0	0	0
5/5	2.3%	0	0.0	0.0	0	0
5/6	2.0%	0	0.0	0.0	0	0
5/7	1.5%	0	0.0	0.0	0	0
5/8	1.5%	0	0.0	0.0	0	0
5/9	2.3%	0	0.0	0.0	0	0
5/10	1.0%	0	0.0	0.0	0	0
Weekly		0	0.0	0.0	0	0
Season to date		247	0.0	0.8	1,690	3,094

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 10

Pacific Lamprey

Western Brook

End Date	Macrophthalmia			Ammocoetes			Ammocoetes		
	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
5/4	0	0.0	0	0	0.0	0	0	0	0
5/5	0	0.0	0	0	0.0	0	0	0	0
5/6	0	0.0	0	0	0.0	0	0	0	0
5/7	2	0.0	133	0	0.0	0	0	0	0
5/8	0	0.0	0	0	0.0	0	0	0	0
5/9	0	0.0	0	0	0.0	0	0	0	0
5/10	0	0.0	0	0	0.0	0	0	0	0
Weekly	2	0.0	133	0	0.0	0	0	0	0
Season to date	153	3.3	1,078	2	0.0	10	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

WEEK 10

		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#		675	709	0	0	34	34	257	276	403	339	3	2
DESCALING	3-19%	7.9%	6.2%			11.8%		11.7%	8.0%	4.5%	2.1%		
	>20%	6.4%	2.5%				2.9%	1.2%	0.4%	1.0%	0.3%		
	Pred. Desc.							0.4%		0.2%			
INJURY	BODY	2.5%	1.7%				2.9%	4.7%	3.6%	1.2%	0.3%		
	EYE		0.3%										
	HEAD										0.3%		
	OPERC.	1.0%	0.7%			5.9%		5.4%	2.9%	0.5%	0.6%		
	FIN	1.5%	1.0%					1.6%	1.8%	1.2%	1.8%		
	POPEYE		0.1%										
OTHER CONDITIONS	PINK FIN												
	Fin Discolor.												
	FIN HEM.	0.3%	0.3%							0.3%			
DISEASE	Columnaris	0.1%							0.7%	0.5%			
	FUNGUS												
	BKD												
	PARASITES	0.1%	0.1%					0.4%	0.4%				
	DEFORMITY												
	EYE HEM.	0.6%	0.4%					0.4%					
PREDATION	BIRD	0.4%	0.4%					4.3%	2.9%	0.2%			
	FISH	0.3%	0.1%					0.4%	0.4%	0.5%			
	LAMPREY												
	OTHER												

end dates

5/10

5/3

Juvenile Lamprey Condition

Week 10			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	5/10	2												
Last Week	5/3	0												
AP - Ammocetes		SAMPLE #												
This Week	5/10	0												
Last Week	5/3	0												

SECTION 4. Incidental Summary

Week 10

	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	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	1	0
Season to Date	0	0	0	0	0	4	12	67

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	1	0	0	0
Season to Date	0	0	5	45	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	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		26						28
2022	1		44						45
2023	312		260						572
2024	14,568	208	9,983	1	1				24,761
								5,153	5,153
Grand Total	14,883	208	10,314	1	1	0	0	5,153	30,560

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 examined: three 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 two fin clips were obtained from Pacific Lamprey macrophthalmia for Columbia River Inter-Tribal Fish Commission's genetic studies.

Separation by Code was active for Round Butte Hatchery this week.

SECTION 8. Sampling Pictures



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