



Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-27

Report Period: 8/31 – 9/6, 2024

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SECTION 1. River Flow and Sampling Results

WEEK 27

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	94.4	129.3	104.1	113.8	105.2
B. Powerhouse 1	6.5	9.0	8.3	0.0	16.8
C. Powerhouse 2	57.2	81.9	73.7	51.1	66.2
D. Spill (kcf/s)	1.5	55.5	15.5	55.4	14.9
% of River Flow	1.5	42.9	13.2	48.9	11.9
E. Water Temp *	69.2	70.1	69.7	69.2	70.2
F. % Saturation *					

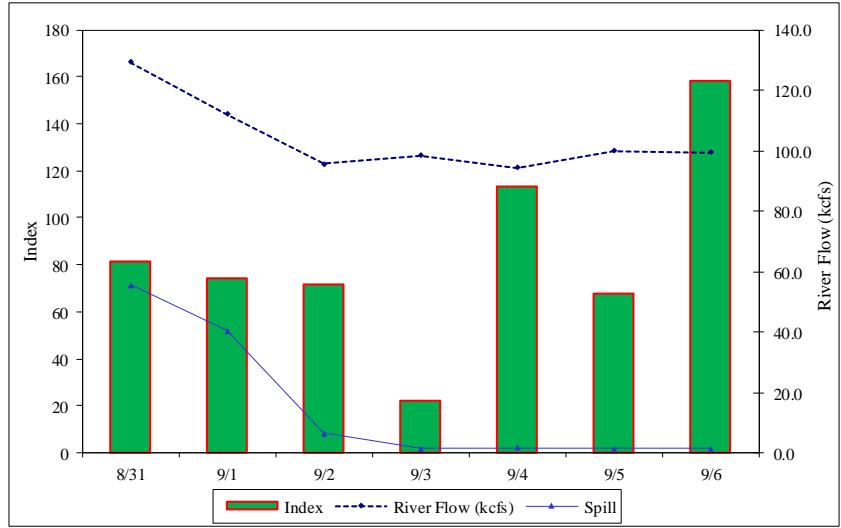
* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	0.0%	0.0%
SUBYEARLING CHINOOK	100.0%	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	0.0%	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	
8/31	10.0%	0	0.0	0.0	0	0	4	0.0	0.0	40	81	0	0.0	0.0	0	0	
9/1	10.0%	0	0.0	0.0	0	0	4	0.0	0.0	40	74	0	0.0	0.0	0	0	
9/2	5.0%	0	0.0	0.0	0	0	3	0.0	0.0	60	72	0	0.0	0.0	0	0	
9/3	5.0%	0	0.0	0.0	0	0	1	0.0	0.0	20	23	0	0.0	0.0	0	0	
9/4	5.0%	0	0.0	0.0	0	0	5	0.0	0.0	100	114	0	0.0	0.0	0	0	
9/5	5.0%	0	0.0	0.0	0	0	3	0.0	0.0	60	68	0	0.0	0.0	0	0	
9/6	5.0%	0	0.0	0.0	0	0	7	0.0	0.0	140	158	0	0.0	0.0	0	0	
Weekly		0	0.0	0.0	0	0	27	0.0	0.0	460	589	0	0.0	0.0	0	0	
Season to date		14,439	2.6	0.6	615,017	2,468,619	23,100	0.9	1.5	623,656	1,746,357	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	
8/31	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	
9/1	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	
9/2	5.0%	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	
9/3	5.0%	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	
9/4	5.0%	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	
9/5	5.0%	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	
9/6	5.0%	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	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
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
8/31	10.0%	4	0.0	0.0	40	81
9/1	10.0%	4	0.0	0.0	40	74
9/2	5.0%	3	0.0	0.0	60	72
9/3	5.0%	1	0.0	0.0	20	23
9/4	5.0%	5	0.0	0.0	100	114
9/5	5.0%	3	0.0	0.0	60	68
9/6	5.0%	7	0.0	0.0	140	158
Weekly		27	0.0	0.0	460	589
Season to date		43,022	1.6	1.1	1,515,141	5,300,171



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 27

End Date	Pacific Lamprey			Ammocoetes			Western Brook Ammocoetes		
	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
8/31	0	0.0	0	1	0.0	10	0	0	0
9/1	0	0.0	0	0	0.0	0	0	0	0
9/2	0	0.0	0	0	0.0	0	0	0	0
9/3	0	0.0	0	0	0.0	0	0	0	0
9/4	0	0.0	0	0	0.0	0	0	0	0
9/5	0	0.0	0	0	0.0	0	0	0	0
9/6	0	0.0	0	0	0.0	0	0	0	0
Weekly	0	0.0	0	1	0.0	10	0	0	0
Season to date	202	2.5	3,046	7	0.0	46	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

WEEK 27

Subyearling	DESCALING		INJURY						Other Conditions					
	Chinook	SAMPLE #	3-19%	>20%	Pred. Desc.	BODY	EYE	HEAD	OP	FIN	POPEYE	PINK FIN	Fin Discolor.	FIN HEM
This Week		27							3.7%					
Last Week		21												
This Week			DISEASE						PREDATION					
	SAMPLE #		Columnaris	FUNGUS	BKD	PARASITES	DEFORMITY	EYE	HEM	BIRD	FISH	LAMPREY	OTH	
	27		7.4%						3.7%					
Last Week	21													

Juvenile Lamprey Condition

Week 27			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	9/6	0												
	Last Week	8/30	1											100.0%	
AP - Ammocoetes	SAMPLE #														
	This Week	9/6	1	100.0%											
	Last Week	8/30	0												

SECTION 4. Incidental Summary

Week 27

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	1	0	1	0	0	0	0
Season to Date	0	66	11	7	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	2	29	0
Season to Date	0	0	1	0	2	18	1,204	83

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	0	21	163,148	0
Season to Date	1	0	44	51	4	276	520,069	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	188	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	5		41				1		47
2022	6		103	1			2		112
2023	698	9	697				1		1,405
2024	40,432	3,350	19,243	2,408	7		6		65,446
Grand Total	41,141	3,359	20,086	2,409	7	0	11	5,213	72,226

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 this week consisting mostly of aquatic macrophytes, a few sticks and dead adult American shad. The Outfall hydro-cannons are operating.

Spill and corner collector operations for the juvenile fish passage season concluded just after midnight on 1 September.

Gas Bubble Trauma (GBT) examinations have concluded for the season. Please follow this link: <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further 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.

Fallbacks observed this week: seven salmon and one steelhead.

SECTION 7. Research

One fin clip was obtained from a Pacific Lamprey ammocoete for Columbia River Inter-Tribal Fish Commission's genetic studies.

SECTION 8. Sampling Pictures



Life history comparison of juvenile American shad (*Alosa sapidissima*). “Holdover” approximately 170 mm (top) versus age 0, 65 mm fork length, similar to specimens sampled at the Bonneville SMF on 5 September, 2024.