



Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-6

Report Period: 4/6 – 4/12, 2024

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SECTION 1. River Flow and Sampling Results

WEEK 6

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	145.5	168.7	151.7	153.1	117.5
B. Powerhouse 1	0.0	10.3	6.9	10.0	2.5
C. Powerhouse 2	34.3	122.1	93.4	119.9	71.4
D. Spill (kcf/s)	1.5	122.0	39.0	10.8	36.5
% of River Flow	1.0	72.3	24.1	6.6	27.2
E. Water Temp *	49.0	50.5	49.6	49.0	46.1
F. % Saturation *					

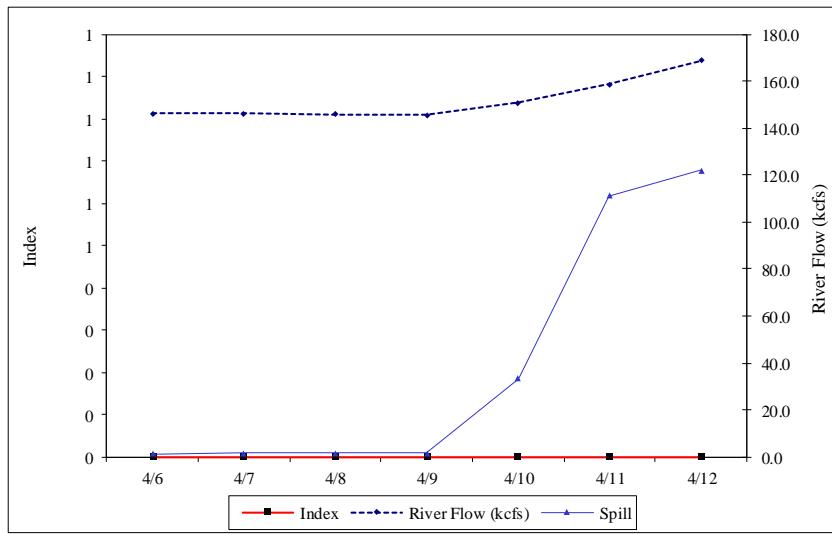
* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	N/A	16.9%
SUBYEARLING CHINOOK	N/A	12.2%
CHINOOK FRY	N/A	69.5%
UNCLIPPED STEELHEAD	N/A	0.7%
CLIPPED STEELHEAD	N/A	0.0%
COHO	N/A	0.2%
COHO FRY	N/A	0.4%
SOCKEYE	N/A	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	
4/6	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/7	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/8	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/9	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/10	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/11	0.0%	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	
4/12	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	
Season to date		1,448	0.3	0.3	8,327	9,525	8,993	0.0	1.9	55,805	63,571	85	0.0	0.0	482	546	

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		
4/6	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	0	0	
4/7	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	0	0	
4/8	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	0	0	
4/9	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	0	0	
4/10	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	0	0	
4/11	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	0	0	
4/12	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	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	0	
Season to date		44	0.0	0.0	250	286	2	0.0	0.0	10	12	5	0.0	0.0	0	0	25	0.0	0.0	0	0	30	

TOTAL					
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll
4/6	0.0%	0	0.0	0.0	0
4/7	0.0%	0	0.0	0.0	0
4/8	0.0%	0	0.0	0.0	0
4/9	0.0%	0	0.0	0.0	0
4/10	0.0%	0	0.0	0.0	0
4/11	0.0%	0	0.0	0.0	0
4/12	0.0%	0	0.0	0.0	0
Weekly		0	0.0	0.0	0
Season to date		10,577	0.0	1.7	64,899
					73,969



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

Chum Fry Sampling Results

CHUM FRY						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
4/6	0.0%	0	0.0	0.0	0	0
4/7	0.0%	0	0.0	0.0	0	0
4/8	0.0%	0	0.0	0.0	0	0
4/9	0.0%	0	0.0	0.0	0	0
4/10	0.0%	0	0.0	0.0	0	0
4/11	0.0%	0	0.0	0.0	0	0
4/12	0.0%	0	0.0	0.0	0	0
Weekly		0	0.0	0.0	0	0
Season to date		241	0.0	0.8	1,340	1,535

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 6	Pacific Lamprey						Western Brook Ammocoetes					
	Macrophthalmia			Ammocoetes			Macrophthalmia			Ammocoetes		
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
4/6	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/7	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/8	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/9	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/10	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/11	0	0.0	0	0	0.0	0	0	0	0	0	0	0
4/12	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
Season to date	145	3.4	775	2	0.0	10	0	0	0	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

WEEK 6	Yearling Chinook	Subyearling Chinook	Unclipped Steelhead	Clipped Steelhead	Coho	Sockeye
	This Week	Last Week	This Week	Last Week	This Week	Last Week
SAMPLE #	0	523	0	0	0	6
DESCALING	3-19%	2.3%		8.7%		
	>20%	0.2%				
Pred. Desc.						
INJURY	BODY	2.7%				
	EYE					
	HEAD					
	OPERC.	0.2%				
	FIN	2.3%				
	POPEYE				16.7%	
OTHER CONDITIONS	PINK FIN					
	Fin Discolor.					
	FIN HEM.	0.4%				
DISEASE	Columnaris					33.3%
	FUNGUS	0.4%				
	BKD	0.4%				
	PARASITES	0.4%				
	DEFORMITY	0.2%				
	EYE HEM.	0.4%				
PREDATION	BIRD	0.8%		4.3%		
	FISH	1.5%				
	LAMPREY	0.2%				
	OTHER					
end dates	4/12	4/5				

Juvenile Lamprey Condition

Week 6			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	4/12	0											
	Last Week	4/5	22											9.1%
AP - Ammocoetes	SAMPLE #													
	This Week	4/12	0											
	Last Week	4/5	0											

SECTION 4. Incidental Summary

Week 6	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	5	5	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	0
Season to Date	0	0	0	0	0	3	10	61
	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	43	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	164	0	36

*Other/Not listed in Season-to-Date totals include: 29 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
2021	1			9					10
2022	1			10					11
2023	14			45					59
2024	2,164			29					2,193
								58	58
Grand Total	2,180	0	93	0	0	0	0	58	2,331

SECTION 6. Facility Operations

Sample collections at the Smolt Monitoring Facility (SMF) began at 0700 on 2 March. The SMF remained in Bypass throughout the week to allow Spring Creek NFH fish to pass the project (please see below). The Outfall hydro-cannons are operating.

The Bonneville Smolt Monitoring Facility was placed in Bypass mode at 0700 on 4 April. This action was taken in response to an emergency release of approximately 11 million Tule fall Chinook from Spring Creek NFH due to a disease outbreak at the hatchery. Due to the quantity of fish released and the proximity of the hatchery to the project, it was necessary to suspend sampling to prevent incursion of pathogens into the facility. Sampling will likely be suspended for 7-10 days, to allow the bulk of these fish to pass the project.

NOTE Sample collections resumed at 0700 on 12 April.

SECTION 7. Research

No research collections were performed this week.

SECTION 8. Sampling Pictures



Chum fry (*Oncorhynchus keta*), approximately 45 mm, similar to many found in our samples at Bonneville Smolt Monitoring Facility this season.