

# Pacific States Marine Fisheries Commission

## Bonneville Smolt Monitoring Weekly Report, #24-3

Report Period: 3/16 – 3/22, 2024

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### SECTION 1. River Flow and Sampling Results

Please note: Our report week encompasses 0700 Saturday through 0700 Friday. Also, please note that all subyearling Chinook on this report are fry.

#### WEEK 3

	Min		Max		Mean	
					Current	Last Week
A. River Flow	135.2	144.5	139.3	129.2	116.0	
B. Powerhouse 1	9.5	10.4	10.1	9.4	43.2	
C. Powerhouse 2	114.6	119.7	117.3	109.4	62.6	
D. Spill (kcfs)	1.4	4.4	1.9	1.4	6.3	
% of River Flow	1.0	3.0	1.3	1.1	5.4	
E. Water Temp *	44.7	46.4	45.7	43.9	41.4	
F. % Saturation *						

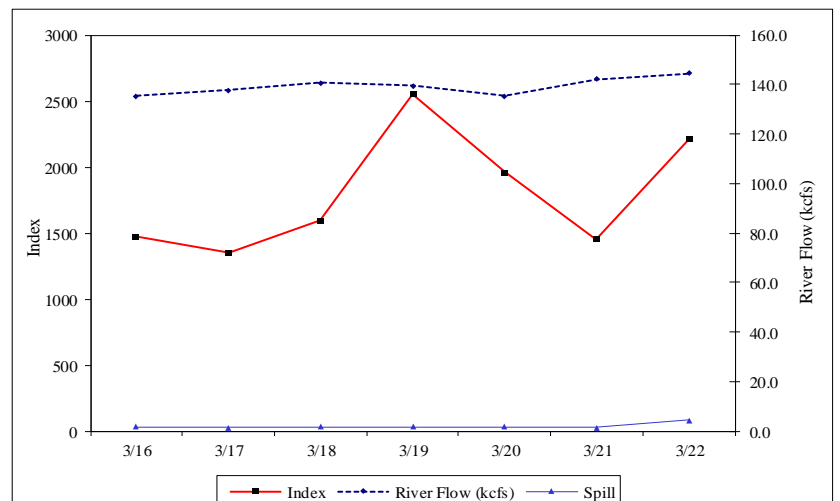
\* In sampling facility.

% SAMPLE COMPOSITION	This Week		Last Week	
YEARLING CHINOOK	3.1%	7.6%		
SUBYEARLING CHINOOK	0.0%	0.0%		
CHINOOK FRY	95.9%	89.7%		
UNCLIPPED STEELHEAD	0.2%	0.3%		
CLIPPED STEELHEAD	0.0%	0.0%		
COHO	0.1%	0.5%		
COHO FRY	0.7%	1.9%		
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
3/16	20.0%	5	0.0	0.0	25	27	257	0.0	1.2	1,285	1,407	5	0.0	0.0	25	27
3/17	20.0%	8	0.0	0.0	40	44	232	0.0	1.3	1,160	1,272	5	0.0	0.0	25	27
3/18	20.0%	9	0.0	0.0	45	49	278	0.0	2.5	1,390	1,528	2	0.0	0.0	10	11
3/19	20.0%	7	0.0	0.0	35	38	454	0.0	2.2	2,270	2,496	2	0.0	0.0	10	11
3/20	20.0%	10	0.0	0.0	50	55	345	0.0	1.7	1,725	1,900	1	0.0	0.0	5	6
3/21	20.0%	13	0.0	0.0	65	71	249	0.0	0.4	1,245	1,366	2	0.0	0.0	10	11
3/22	20.0%	18	0.0	5.6	90	101	373	0.0	2.4	1,865	2,095	0	0.0	0.0	0	0
Weekly		70	0.0	1.4	350	387	2,188	0.0	1.8	10,940	12,064	17	0.0	0.0	85	93
Season to date		558	0.0	0.4	3,487	3,842	3,676	0.0	1.3	19,545	21,538	49	0.0	0.0	272	299

End Date	Sample Rate	UNCLIPPED					STEELHEAD					CLIPPED					SOCKEYE				
		# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
3/16	20.0%	1	0.0	0.0	5	5	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/17	20.0%	1	0.0	0.0	5	5	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/18	20.0%	1	0.0	0.0	5	5	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/19	20.0%	1	0.0	0.0	5	5	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/20	20.0%	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
3/21	20.0%	1	0.0	0.0	5	5	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/22	20.0%	0	0.0	0.0	0	0	1	0.0	0.0	5	6	1	0.0	0.0	5	6	1	0.0	0.0	5	6
Weekly		5	0.0	0.0	25	27	1	0.0	0.0	5	6	1	0.0	0.0	5	6	1	0.0	0.0	5	6
Season to date		10	0.0	0.0	50	55	1	0.0	0.0	5	6	1	0.0	0.0	5	6	1	0.0	0.0	5	6

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
3/16	20.0%	268	0.0	1.1	1,340	1,468
3/17	20.0%	246	0.0	1.2	1,230	1,348
3/18	20.0%	290	0.0	2.4	1,450	1,594
3/19	20.0%	464	0.0	2.2	2,320	2,551
3/20	20.0%	356	0.0	1.7	1,780	1,960
3/21	20.0%	265	0.0	0.4	1,325	1,454
3/22	20.0%	393	0.0	2.5	1,965	2,207
Weekly		2,282	0.0	1.8	11,410	12,583
Season to date		4,295	0.0	1.2	23,364	25,745



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

## Chum Fry Sampling Results

### CHUMFRY

End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
3/16	20.0%	13	0.0	0.0	65	71
3/17	20.0%	11	0.0	0.0	55	60
3/18	20.0%	1	0.0	0.0	5	5
3/19	20.0%	2	0.0	0.0	10	11
3/20	20.0%	11	0.0	0.0	55	61
3/21	20.0%	6	0.0	0.0	30	33
3/22	20.0%	11	0.0	9.1	55	62
Weekly		55	0.0	0.0	275	303
Season to date		106	0.0	0.9	530	583

## 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 3

#### Pacific Lamprey

#### Western Brook

#### Macrophthalmia

#### Ammocoetes

#### Ammocoetes

End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
3/16	5	0.0	25	1	0.0	5	0	0	0
3/17	6	0.0	30	0	0.0	0	0	0	0
3/18	11	0.0	55	0	0.0	0	0	0	0
3/19	12	0.0	60	0	0.0	0	0	0	0
3/20	13	7.7	65	0	0.0	0	0	0	0
3/21	0	0.0	0	0	0.0	0	0	0	0
3/22	6	0.0	30	0	0.0	0	0	0	0
Weekly	53	1.9	265	1	0.0	5	0	0	0
Season to date	103	3.9	535	2	0.0	10	0	0	0

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

### Smolt Condition

#### WEEK 3

		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#		69	66	0	0	5	3	1	0	2	4	1	0
DESCALING	3-19% >20% Pred. Desc.	7.2%				33.3%							
INJURY	BODY EYE HEAD OPERC. FIN POPEYE	7.2%	1.5%										
OTHER CONDITIONS	PINK FIN Fin Discolor. FIN HEM.												
DISEASE	Columnaris FUNGUS BKD PARASITES DEFORMITY EYE HEM.	8.7%	10.6%										
PREDATION	BIRD FISH LAMPREY OTHER	1.4%											

end dates 3/22 3/15

## Juvenile Lamprey Condition

Week 3			INJURY					DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophthalmia	End Date	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN	HEM	Columnaris	FUNGUS	DEFORMITY	EYE	HEM.
This Week	3/22	52				1.9%		3.8%						3.8%
Last Week	3/15	33	3.0%					3.0%			3.0%			9.1%
AP - Ammocoetes		SAMPLE #												
This Week	3/22	1												
Last Week	3/15	1												

## SECTION 4. Incidental Summary

Week 3		Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week		0	2	0	0	0	0	0	0
Season to Date		0	2	3	1	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	2	1	18
Season to Date		0	0	0	0	0	2	6	38

		Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week		0	0	1	10	0	0	0	0
Season to Date		0	0	3	22	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	48	0	17
Season to Date		0	0	0	0	0	99	0	24

\*Other/Not listed in this week's totals include: 16 Banded killifish and one Pink salmon fry.  
Season-to-Date totals include: 22 Banded killifish and two 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			5						5
2022	1		1						2
2023	6		14						20
2024	219								219
								1	1
Grand Total	226	0	20	0	0	0	0	1	247

## **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 moderate to heavy consisting mostly of sticks and other woody debris. The Outfall hydro-cannons are operating.

Fallbacks observed this week: four steelhead.

## **SECTION 7. Research**

A total of 51 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 this week.

## **SECTION 8. Sampling Pictures**



Pink salmon fry (*Oncorhynchus gorbuscha*), approximately 35 mm, sampled at Bonneville Smolt Monitoring Facility this report week.