

# Pacific States Marine Fisheries Commission

## Bonneville Smolt Monitoring Weekly Report, #24-1

Report Period: 3/2 – 3/8, 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 1

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	127.9	137.9	131.4	N/A	110.2
B. Powerhouse 1	9.4	10.5	9.8	N/A	34.0
C. Powerhouse 2	106.7	117.1	111.7	N/A	67.2
D. Spill (kfcfs)	1.3	3.6	1.8	N/A	6.1
% of River Flow	0.9	2.8	1.3	N/A	5.5
E. Water Temp *	42.8	43.3	43.1	N/A	39.6
F. % Saturation *					

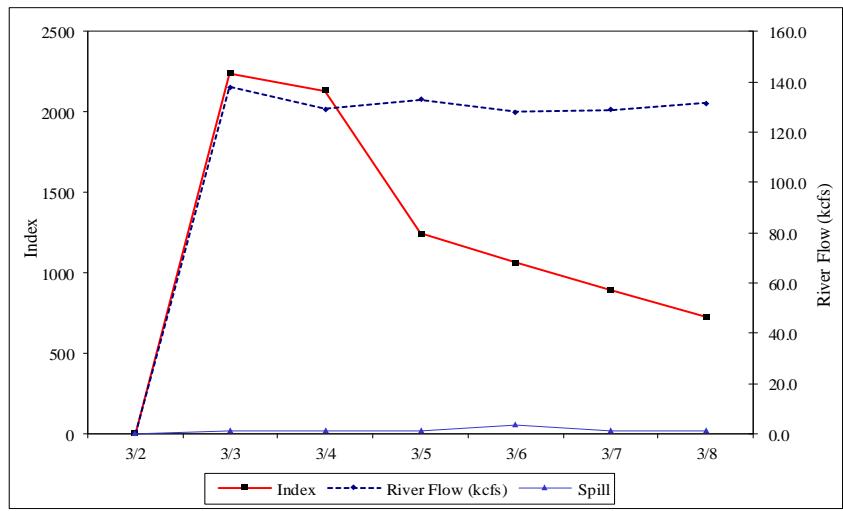
\* In sampling facility.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	37.4%	N/A
SUBYEARLING CHINOOK	0.0%	N/A
CHINOOK FRY	61.5%	N/A
UNCLIPPED STEELHEAD	0.2%	N/A
CLIPPED STEELHEAD	0.0%	N/A
COHO	0.2%	N/A
COHO FRY	0.8%	N/A
SOCKEYE	0.0%	N/A

YEARLING CHINOOK						SUBYEARLING CHINOOK						COHO					
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	
3/3	20.0%	191	0.0	0.0	955	1,051	214	0.0	0.0	1,070	1,178	1	0.0	0.0	5	6	
3/4	10.0%	83	0.0	0.0	830	911	109	0.0	0.0	1,090	1,197	2	0.0	0.0	20	22	
3/5	10.0%	39	0.0	0.0	390	429	73	0.0	0.0	730	803	1	0.0	0.0	10	11	
3/6	12.5%	29	0.0	0.0	232	261	85	0.0	0.0	680	765	4	0.0	0.0	32	36	
3/7	20.0%	57	0.0	0.0	285	314	104	0.0	0.0	520	573	1	0.0	0.0	5	6	
3/8	20.0%	22	0.0	0.0	110	121	107	0.0	0.9	535	587	2	0.0	0.0	10	11	
Weekly		421	0.0	0.0	2,802	3,088	692	0.0	0.1	4,625	5,103	11	0.0	0.0	82	91	
Season to date		421	0.0	0.0	2,802	3,088	692	0.0	0.1	4,625	5,103	11	0.0	0.0	82	91	

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
3/3	20.0%	1	0.0	0.0	5	6	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
3/4	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
3/5	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
3/6	12.5%	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
3/7	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
3/8	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
Weekly		2	0.0	0.0	10	11	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0
Season to date		2	0.0	0.0	10	11	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
3/3	20.0%	407	0.0	0.0	2,035	2,240
3/4	10.0%	194	0.0	0.0	1,940	2,130
3/5	10.0%	113	0.0	0.0	1,130	1,243
3/6	12.5%	118	0.0	0.0	944	1,062
3/7	20.0%	162	0.0	0.0	810	893
3/8	20.0%	132	0.0	0.8	660	724
Weekly		1,126	0.0	0.1	7,519	8,292
Season to date		1,126	0.0	0.1	7,519	8,292



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
3/3	20.0%	0	0.0	0.0	0	0
3/4	10.0%	0	0.0	0.0	0	0
3/5	10.0%	0	0.0	0.0	0	0
3/6	12.5%	0	0.0	0.0	0	0
3/7	20.0%	0	0.0	0.0	0	0
3/8	20.0%	4	0.0	0.0	20	22
Weekly		4	0.0	0.0	20	22
Season to date		4	0.0	0.0	20	22

## 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 1	Pacific Lamprey						Western Brook		
	Macrophthalmia			Ammocoetes			Ammocoetes		
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
3/3	2	0.0	10	0	0.0	0	0	0	0
3/4	0	0.0	0	0	0.0	0	0	0	0
3/5	4	25.0	40	0	0.0	0	0	0	0
3/6	0	0.0	0	0	0.0	0	0	0	0
3/7	2	0.0	10	0	0.0	0	0	0	0
3/8	7	0.0	35	0	0.0	0	0	0	0
Weekly	15	6.7	95	0	0.0	0	0	0	0
Season to date	15	6.7	95	0	0.0	0	0	0	0

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

### Smolt Condition

WEEK 1		Yearling Chinook	Subyearling Chinook	Unclipped Steelhead	Clipped Steelhead	Coho	Sockeye
		This Week	Last Week	This Week	Last Week	This Week	Last Week
SAMPLE #	330 0	0 0	0 0	2 0	0 0	2 0	0 0
DESCALING	3-19% >20% Pred. Desc.	1.2%				50.0%	
INJURY	BODY EYE HEAD OPERC. FIN POPEYE	0.9%  3.6%					
OTHER CONDITIONS	PINK FIN Fin Discolor. FIN HEM.						
DISEASE	Columnaris FUNGUS BKD PARASITES DEFORMITY EYE HEM.	0.9%  0.9%  0.3%					
PREDATION	BIRD FISH LAMPREY OTHER	0.3%					

end dates

3/8

## Juvenile Lamprey Condition

Week 1			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	3/8	14					7.1%						14.3%
	Last Week		0											
AP - Ammocoetes	SAMPLE #													
	This Week	3/8	0											
	Last Week		0											

## SECTION 4. Incidental Summary

Week 1		Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week		0	0	1	1	0	0	0	0
Season to Date		0	0	1	1	0	0	0	0
This Week		Dace - Longnose	Dace - Speckled	Chinook Jack	Kokanee	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week		0	0	0	0	0	0	1	8
Season to Date		0	0	0	0	0	0	1	8
This Week		Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week		0	0	1	8	0	0	0	0
Season to Date		0	0	1	8	0	0	0	0
This Week		Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn		Other/Not Listed
This Week		0	0	0	0	0	15	0	3
Season to Date		0	0	0	0	0	15	0	3

\*Other/Not listed in this week's totals include: three Banded killifish.

## 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						1
2022	1								1
2023	1		6						7
2024	177								177
								0	
Grand Total	179	0	7	0	0	0	0	1	187

## **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. The Outfall hydro-cannons are operating.

Fallbacks observed this week: three steelhead.

## **SECTION 7. Research**

A total of 14 fin clips were obtained from Pacific Lamprey *macrophthalmia* for Columbia River Inter-Tribal Fish Commission's genetic studies this week.

## **SECTION 8. Sampling Pictures**



Banded Killifish (*Fundulus diaphanus*), approximately 95 mm, similar to several specimens sampled this week at Bonneville Smolt Monitoring Facility.