

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 (kcfs)	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 *					

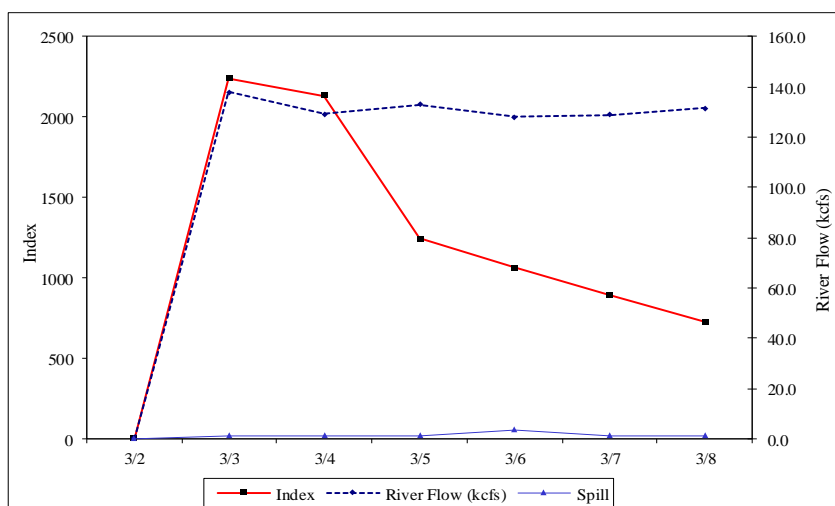
* In sampling facility.

% 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

CHUMFry

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

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

		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

		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

		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
								1	1
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.