

Pacific States Marine Fisheries Commission

Bonneville Smolt Monitoring Weekly Report, #24-7

Report Period: 4/13 – 4/19, 2024

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SECTION 1. River Flow and Sampling Results

WEEK 7

	Min	Max	Mean		
			Current	Last Week	2023
A. River Flow	170.0	204.6	185.2	151.7	160.2
B. Powerhouse 1	0.0	0.0	0.0	6.9	0.0
C. Powerhouse 2	34.5	45.2	37.5	93.4	31.1
D. Spill (kcfs)	127.2	152.0	140.3	39.0	121.7
% of River Flow	74.3	76.6	75.8	24.1	75.9
E. Water Temp *	50.6	51.4	50.9	49.6	47.3
F. % Saturation *					

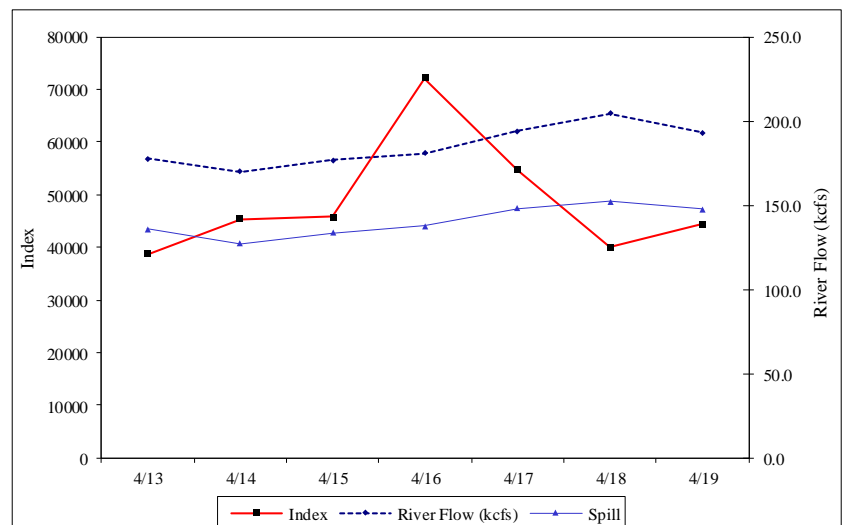
* In sampling facility.

% SAMPLE COMPOSITION	This Week Last Week	
YEARLING CHINOOK	78.3%	N/A
SUBYEARLING CHINOOK	5.7%	N/A
CHINOOK FRY	6.7%	N/A
UNCLIPPED STEELHEAD	0.4%	N/A
CLIPPED STEELHEAD	0.4%	N/A
COHO	8.5%	N/A
COHO FRY	0.0%	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
4/13	5.0%	277	0.0	0.0	5,540	27,331	89	0.0	2.2	1,780	8,781	25	4.0	0.0	500	2,467
4/14	3.5%	261	0.4	0.0	7,254	33,319	64	0.0	1.6	2,004	9,205	24	0.0	4.2	602	2,765
4/15	4.0%	321	0.3	0.0	8,025	38,034	39	0.0	0.0	975	4,621	23	0.0	0.0	575	2,725
4/16	4.0%	501	0.0	0.0	12,525	61,281	31	0.0	0.0	775	3,792	56	0.0	3.6	1,400	6,850
4/17	4.0%	349	0.3	0.0	8,802	42,684	57	0.0	0.0	1,240	6,013	41	0.0	0.0	1,084	5,257
4/18	3.0%	210	1.0	0.0	7,000	30,540	29	0.0	0.0	966	4,214	29	0.0	3.4	967	4,219
4/19	3.0%	207	1.9	0.5	6,900	33,879	26	0.0	0.0	867	4,257	33	0.0	0.0	1,100	5,401
Weekly		2,126	0.4	0.0	56,046	267,068	335	0.0	0.9	8,607	40,884	231	0.4	1.7	6,228	29,683
Season to date		3,574	0.4	0.2	64,373	276,593	9,328	0.0	1.9	64,412	104,454	316	0.3	1.3	6,710	30,230

End Date	Sample Rate	UNCLIPPED STEELHEAD					CLIPPED STEELHEAD					SOCKEYE				
		# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
4/13	5.0%	1	0.0	0.0	20	99	0	0.0	0.0	0	0	0	0.0	0.0	0	0
4/14	3.5%	1	0.0	0.0	4	18	0	0.0	0.0	0	0	0	0.0	0.0	0	0
4/15	4.0%	3	0.0	0.0	75	355	1	0.0	0.0	25	118	0	0.0	0.0	0	0
4/16	4.0%	0	0.0	0.0	0	0	1	0.0	0.0	25	122	0	0.0	0.0	0	0
4/17	4.0%	3	0.0	0.0	150	727	0	0.0	0.0	0	0	0	0.0	0.0	0	0
4/18	3.0%	2	0.0	0.0	66	288	5	0.0	0.0	167	729	0	0.0	0.0	0	0
4/19	3.0%	1	0.0	0.0	33	162	4	0.0	0.0	133	653	0	0.0	0.0	0	0
Weekly		11	0.0	0.0	348	1,650	11	0.0	0.0	350	1,622	0	0.0	0.0	0	0
Season to date		55	0.0	0.0	598	1,936	13	0.0	0.0	360	1,634	5	0.0	0.0	25	30

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
4/13	5.0%	392	0.3	0.5	7,840	38,677
4/14	3.5%	350	0.3	0.6	9,864	45,308
4/15	4.0%	387	0.3	0.0	9,675	45,855
4/16	4.0%	589	0.0	0.3	14,725	72,044
4/17	4.0%	450	0.2	0.0	11,276	54,681
4/18	3.0%	275	0.7	0.4	9,166	39,990
4/19	3.0%	271	1.5	0.4	9,033	44,353
Weekly		2,714	0.4	0.3	71,579	340,907
Season to date		13,291	0.1	1.4	136,478	414,877



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
4/13	5.0%	0	0.0	0.0	0	0
4/14	3.5%	0	0.0	0.0	0	0
4/15	4.0%	2	0.0	0.0	50	237
4/16	4.0%	0	0.0	0.0	0	0
4/17	4.0%	2	0.0	0.0	100	485
4/18	3.0%	0	0.0	0.0	0	0
4/19	3.0%	0	0.0	0.0	0	0
Weekly		4	0.0	0.0	150	722
Season to date		245	0.0	0.8	1,490	2,257

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 7

Pacific Lamprey

Western Brook

Macrophthalmia

Ammocoetes

Ammocoetes

End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
4/13	1	0.0	20	0	0.0	0	0	0	0
4/14	0	0.0	0	0	0.0	0	0	0	0
4/15	0	0.0	0	0	0.0	0	0	0	0
4/16	0	0.0	0	0	0.0	0	0	0	0
4/17	1	0.0	50	0	0.0	0	0	0	0
4/18	0	0.0	0	0	0.0	0	0	0	0
4/19	0	0.0	0	0	0.0	0	0	0	0
Weekly	2	0.0	70	0	0.0	0	0	0	0
Season to date	147	3.4	845	2	0.0	10	0	0	0

SECTION 3. Smolt and Juvenile Lamprey Condition Monitoring Summary

Smolt Condition

WEEK 7

		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 #		715	0	0	0	11	0	11	0	227	0	0	0
DESCALING	3-19%	1.1%				27.3%		27.3%		1.8%			
	>20%	1.0%								0.4%			
	Pred. Desc.												
INJURY	BODY	0.3%				18.2%				1.3%			
	EYE									1.3%			
	HEAD												
	OPERC.	0.3%								0.4%			
	FIN	1.4%								3.5%			
	POPEYE	0.1%											
OTHER CONDITIONS	PINK FIN												
	Fin Discolor.												
	FIN HEM.	0.1%											
DISEASE	Columnaris									4.8%			
	FUNGUS												
	BKD												
	PARASITES												
	DEFORMITY												
	EYE HEM.	0.6%											
PREDATION	BIRD	0.3%						9.1%		1.3%			
	FISH												
	LAMPREY												
	OTHER												

end dates

4/19

4/12

Juvenile Lamprey Condition

Week 7			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	4/19	2												
Last Week	4/12	0												100.0%
AP - Ammocoetes		SAMPLE #												
This Week	4/19	0												
Last Week	4/12	0												

SECTION 4. Incidental Summary

Week 7		Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week		0	1	4	0	0	0	0	0
Season to Date		0	6	9	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	3
Season to Date		0	0	0	0	0	3	10	64

		Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week		0	0	0	2	0	0	0	0
Season to Date		0	0	5	45	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	2	0	3
Season to Date		0	0	0	0	0	166	0	39

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

*Other/Not listed in Season-to-Date totals include: 32 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	2		12						14
2022	1		11						12
2023	16		52						68
2024	3,673	1	327						4,001
								851	851
Grand Total	3,692	1	402	0	0	0	0	851	4,946

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 consisting mostly of sticks and other woody debris. The Outfall hydro-cannons are operating.

The Smolt Monitoring Facility was placed in Bypass mode from 0700 on 4 April through 0700 on 12 April. This suspension of sampling was initiated 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. Because of 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 and allow the bulk of these fish to pass the project. Sample collections resumed at 0700 on 12 April with the sample end-date of 13 April; the beginning of this report week.

Gas Bubble Trauma (GBT) examinations began on 13 April and are typically performed two days per week through the end of spill. Results of this week's Gas Bubble Trauma (GBT) examinations: 200 yearling Chinook and steelhead examined with no GBT symptoms observed. Please follow this link <https://www.fpc.org/currentdaily/gbtsumbybatchdate.pdf> to the FPC web page for further details.

Fallbacks observed this week: one steelhead.

SECTION 7. Research

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

Separation by Code was active for Round Butte Hatchery this week.

SECTION 8. Sampling Pictures



Spring Creek NFH Tule Fall Chinook (*O. tshawytscha*) sampled on 14 April, 2024 at Bonneville Smolt Monitoring Facility.