

Pacific States Marine Fisheries Commission

John Day Dam Condition Monitoring Weekly Report, #23-8

Report Period: 5/20 – 5/26, 2023

Project Manager: Allan Martin

Prepared By: Gregory Kovalchuk and Aaron Young



SECTION 1. River Flow and Sampling Results

	Mean				
	Min	Max	Current	Last Week	2022
A. River Flow	310.7	416.7	376.8	396.7	271.7
B. Powerhouse 1	99.5	194.6	166.2	183.4	114.7
C. Spill (kcfs)	189.8	222.5	209.3	212.2	155.5
% of River Flow	49.6	67.6	56.1	53.9	57.5
D. Water Temp *	57.9	59.1	58.7	56.1	55.4
E. % Saturation *	121.7	125.0	123.1	123.6	114.6

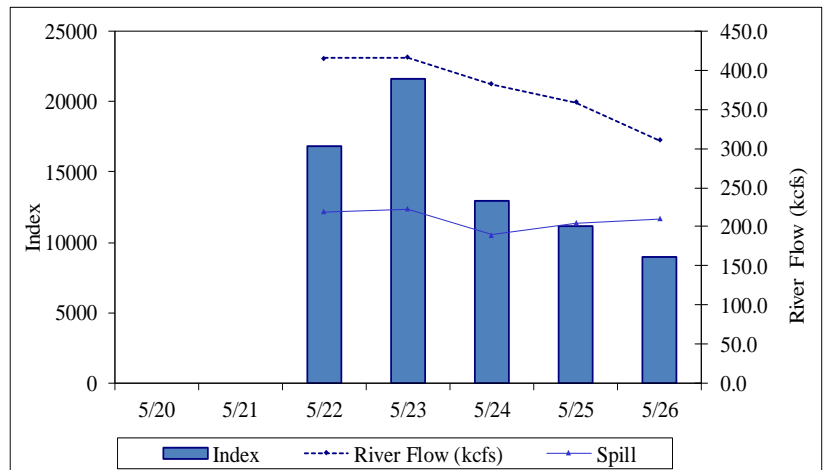
* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

% SAMPLE COMPOSITION			This Week	Last Week
YEARLING CHINOOK	49.8%	73.5%		
SUBYEARLING CHINOOK	9.5%	0.3%		
CHINOOK FRY	1.0%	1.7%		
UNCLIPPED STEELHEAD	9.4%	4.9%		
CLIPPED STEELHEAD	17.9%	11.8%		
COHO	5.9%	4.2%		
COHO FRY	0.0%	0.0%		
SOCKEYE	6.3%	3.7%		

YEARLING CHINOOK							SUBYEARLING CHINOOK					COHO				
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index	# Smpld	% Desc	% Mort	# Coll	Index
5/20																
5/21																
5/22	2.0%	100	4.0	0.0	5,000	10,640	9	11.1	0.0	450	958	10	0.0	0.0	500	1,064
5/23	2.0%	101	3.0	0.0	5,050	10,878	13	0.0	0.0	650	1,400	9	0.0	0.0	450	969
5/24	3.5%	99	3.0	0.0	2,775	5,528	21	4.8	0.0	550	1,096	20	0.0	0.0	650	1,295
5/25	4.0%	97	3.1	0.0	2,425	5,681	20	10.0	0.0	500	1,171	13	7.7	0.0	325	761
5/26	7.6%	99	4.0	0.0	1,350	4,198	42	2.4	0.0	600	1,866	7	14.3	0.0	100	311
Weekly		496	3.4	0.0	16,600	36,924	105	4.8	0.0	2,750	6,490	59	3.4	0.0	2,025	4,400
Season to date		3,733	2.2	0.2	81,818	204,294	146	3.4	0.7	3,839	9,072	156	4.5	0.0	6,414	15,201

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
5/20																					
5/21																					
5/22	2.0%	6	1.0	0.0	300	638	24	4.2	0.0	1,200	2,554	9	11.1	0.0	450	958					
5/23	2.0%	23	0.0	0.0	1,150	2,477	41	2.4	0.0	2,050	4,416	14	21.4	0.0	700	1,508					
5/24	3.5%	19	1.0	0.0	500	996	54	7.4	0.0	1,600	3,187	15	6.7	0.0	425	847					
5/25	4.0%	21	2.0	0.0	525	1,230	24	4.2	0.0	600	1,406	15	0.0	0.0	375	878					
5/26	7.6%	25	1.0	0.0	295	917	35	11.4	0.0	410	1,275	10	0.0	0.0	115	358					
Weekly		94	5.3	0.0	2,770	6,259	178	6.2	0.0	5,860	12,837	63	7.9	0.0	2,065	4,548					
Season to date		317	3.5	0.0	9,916	24,282	933	4.1	0.0	38,375	96,545	109	6.4	0.0	4,290	9,921					

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
5/20						
5/21						
5/22	2.0%	158	5.1	0.0	7,900	16,811
5/23	2.0%	201	3.5	0.0	10,050	21,648
5/24	3.5%	228	4.4	0.0	6,500	12,949
5/25	4.0%	190	4.7	0.0	4,750	11,127
5/26	7.6%	218	5.0	0.0	2,870	8,924
Weekly		995	4.5	0.0	32,070	71,459
Season to date		5,394	2.8	0.2	144,652	359,314



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

	Pacific Lamprey						Western Brook		
	Macrophthalmia			Ammocoetes			Ammocoetes		
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
5/20									
5/21									
5/22	2	0.0	100	0	0.0	0	0	0	0
5/23	2	0.0	100	1	0.0	50	0	0	0
5/24	2	0.0	100	0	0.0	0	0	0	0
5/25	5	0.0	125	0	0.0	0	0	0	0
5/26	3	0.0	45	0	0.0	0	0	0	0
Weekly	14	0.0	470	1	0.0	50	0	0	0
Season to date	230	0.0	2,903	106	0.0	565	0	0	0

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

			INJURY					DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophthalmia This Week Last Week	End Date	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN HEM	Columnaris	FUNGUS	DEFORMITY	EYE HEM.	BIRD	FISH
	5/26	14											28.6%	
	5/19	35	2.9% 2.9%					5.7%					22.9%	
AP - Ammocoetes This Week Last Week		SAMPLE #												
	5/26	1												
	5/19	1												

SECTION 3. Incidental Summary

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	0	1	0	0	0	0	0
Season to Date	0	3	6	0	2	1	0	7

	Dace - Longnose	Dace - Speckled	Chinook Jack	Kokanee	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week	0	0	0	0	1	0	0	1
Season to Date	0	0	0	0	1	0	0	65

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	1	0	0	0
Season to Date	0	0	10	4	1	0	0	0

	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn	Chum Salmon	Banded Killifish
This Week	0	0	0	0	1	7	0	0
Season to Date	0	0	0	21	1	176	0	1

SECTION 4. Facility Operations

Condition Monitoring at John Day Dam is scheduled to sample Monday through Friday until early June. Samples will be taken from the Juvenile Bypass System between 0700 and 1300 hrs. and the Condition Exams will target approximately 100 of the predominant species of out-migrant, which is currently Yearling Spring Chinook. Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars was moderate to high for the week which is coinciding with high river flows and turbid water. Visibility in the sample holding tank was about was better most days this week (> 12 inches) than last week but fish processing was still challenging during some periods. Debris consisted of sticks, tumbleweeds, pieces of terrestrial vegetation, and plastic.

SECTION 5. Research

Genetic fin clip samples were taken from 14 Pacific Lamprey macrophthalmia and one Pacific Lamprey ammocoete for the Columbia River Inter-Tribal Fish Commission during this report period.

SECTION 6. Pictures



Clipped Yearling Spring Chinook smolt (*Oncorhynchus tshawytscha*), approximately 155 mm fork length, showing an injury to the left side operculum and partial descaling, similar to one sampled at the John Day Dam Smolt Facility on May 19, 2023.



Yearling Spring Chinook smolt (*Oncorhynchus tshawytscha*), showing eye hemorrhaging, similar to one sampled at the John Day Dam Smolt Facility on May 24, 2023. Second example is of a steelhead smolt (*O. mykiss*) with a nose/head injury, sampled on May 26, 2023 at John Day Dam Smolt Facility.



Pacific Lamprey *Macrophthalmia* (*Entosphenus tridentatus*), approximately 140 mm total length, showing numerous paired avian predation marks on body and towards the caudal fin, similar to one sampled on 23 May, 2023 at the John Day Dam Smolt Facility.