

Pacific States Marine Fisheries Commission

John Day Dam Condition Monitoring Weekly Report, #23-19

Report Period: 8/5 – 8/11, 2023

Project Manager: Allan Martin

Prepared By: Gregory Kovalchuk



SECTION 1. River Flow and Sampling Results

	Min	Max	Mean		
			Current	Last Week	
				2022	
A. River Flow	115.1	130.0	122.6	119.6	160.4
B. Powerhouse 1	74.0	83.2	78.6	76.2	102.9
C. Spill (kcfcs)	40.2	45.9	43.1	42.2	56.2
% of River Flow	34.9	35.3	35.1	35.2	35.0
D. Water Temp *	71.9	72.2	72.1	71.9	71.3
E. % Saturation *	104.8	105.6	105.2	105.0	107.0

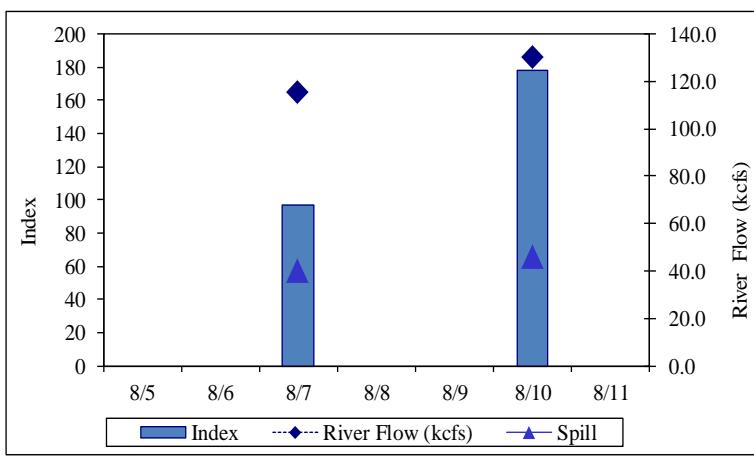
* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

% SAMPLE COMPOSITION		This Week	Last Week
YEARLING CHINOOK	0.0%	0.0%	
SUBYEARLING CHINOOK	100.0%	99.3%	
CHINOOK FRY	0.0%	0.0%	
UNCLIPPED STEELHEAD	0.0%	0.0%	
CLIPPED STEELHEAD	0.0%	0.0%	
COHO	0.0%	0.7%	
COHO FRY	0.0%	0.0%	
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	
8/5																	
8/6																	
8/7	100.0%	0	0.0	0.0	0	0	63	1.6	1.6	63	97	0	0.0	0.0	0	0	0
8/8																	
8/9																	
8/10	91.4%	0	0.0	0.0	0	0	105	0.0	0.0	115	178	0	0.0	0.0	0	0	0
8/11																	
Weekly		0	0.0	0.0	0	0	168	0.6	0.6	178	276	0	0.0	0.0	0	0	0
Season to date		3,887	2.2	0.2	84,179	214,013	3,504	1.2	0.1	54,312	143,795	284	4.9	0.0	8,145	22,040	

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		
8/5																							
8/6																							
8/7	100.0%	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	0	
8/8																							
8/9																							
8/10	91.4%	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	
8/11																							
Weekly		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	
Season to date		344	3.5	0.0	10,294	25,917	958	4.0	0.0	38,693	97,930	139	5.8	0.0	4,696	11,557							

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
8/5						
8/6						
8/7	100.0%	63	1.6	1.6	63	97
8/8						
8/9						
8/10	91.4%	105	0.0	0.0	115	178
8/11						
Weekly		168	0.6	0.6	178	276
Season to date		9,116	2.2	0.1	200,319	515,252



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

Macrophthalmia			Ammocoetes			Western Brook Ammocoetes			
End Date	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll	# Smpld	% Mort	# Coll
8/5									
8/6									
8/7	0	0.0	0	0	0.0	0	0	0	0
8/8									
8/9									
8/10	0	0.0	0	1	0.0	1	0	0	0
8/11									
Weekly	0	0.0	0	1	0.0	1	0	0	0
Season to date	254	0.0	3,248	109	0.0	578	0	0	0

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

		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 #		0	0	167	143	0	0	0	0	0	1	0	0
DESCALING	3-19%			4.8%	7.7%						100.0%		
	>20%				1.4%								
	Pred. Desc.			0.6%	1.4%								
INJURY	BODY			0.6%	1.4%								
	EYE					0.7%							
	HEAD			0.6%	0.7%								
	OPERC.					2.4%							
	FIN												
	POPEYE												
OTHER CONDITIONS	PINK FIN												
	Fin Discolor.												
	FIN HEM.			3.6%	4.9%								
DISEASE	Columnaris					0.7%							
	FUNGUS					0.6%	0.7%						
	BKD					0.6%							
	PARASITES					8.4%	8.4%						
	DEFORMITY												
PREDATION	EYE HEM.												
	BIRD												
	FISH												
	LAMPREY			1.2%	2.1%								
	OTHER					0.7%							

			INJURY						DISEASE and OTHER CONDITIONS					PREDATION	
MP- Macrophthalmia	End	SAMPLE #	BODY	EYE	HEAD	FIN	POPEYE	FIN HEM	Columnaris	FUNGUS	DEFORMITY	EYE HEM.	BIRD	FISH	
	Date		8/11	0											
	This Week		8/4	1											
AP - Ammocoetes	End	SAMPLE #													
	Date		8/11	1											
	Last Week		8/4	0											

SECTION 3. Incidental Summary

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	7	0	0	1	0	0	0
Season to Date	0	32	6	0	4	1	0	7

	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	2	1	0	76

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	9	0	0	2	26,927	0
Season to Date	0	0	30	4	2	3	79,885	0

	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn	Chum Salmon	Banded Killifish
This Week	0	0	0	54	0	0	0	0
Season to Date	0	0	0	105	4	184	0	4

SECTION 4. Facility Operations

Condition Monitoring at John Day Dam was scheduled to sample Monday, Wednesday, and Friday until the Columbia River water temperature averages 70 degrees F., which occurred on July 6. We will now sample Mondays and Thursdays until the Columbia River water temperature averages 69.5 degrees F, at which point we will go back to Monday, Wednesday, and Friday sampling. 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 Subyearling Fall Chinook which were 100% of the sample this week. Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars continued to be very low for the week and consisted of a few sticks, tumbleweed pieces, soft debris such as aquatic macrophytes and bryozoans, and adult American shad.

SECTION 5. Research

One genetic fin clip sample was taken from a Pacific Lamprey ammocoete for the Columbia River Inter-Tribal Fish Commission during this report period. This specimen was somewhat intermediate between an ammocoete and a macrophtalmia because it appeared to be transforming, please see picture section for an example.

SECTION 6. Pictures



Two examples of Pacific lamprey ammocoetes (*Entosphenus tridentatus*), showing developing eyes and a mouth transforming to the parasitic form of the macrophthalmia life stage, approximately 140 mm total length, sampled at the John Day Smolt Facility on August 26, 2011 and similar to one sampled at the John Day Dam Smolt Facility on August 10, 2023.



This is a scale-less juvenile American shad fry (*Alosa sapidissima*), approximately 37 mm fork length, sampled at the John Day Dam Smolt Facility on August 10, 2023. It is unusual in that virtually every other fry this size that I have sampled would have grown scales by this stage in development.