

Pacific States Marine Fisheries Commission

John Day Dam Condition Monitoring Weekly Report, #22-22

Report Period: 8/27 – 9/2, 2022

Prepared By: Gregory Kovalchuk and Aaron Young



SECTION 1. River Flow and Sampling Results

			Mean		
	Min	Max	Current	Last Week	2021
A. River Flow	106.9	130.7	115.4	154.3	116.4
B. Powerhouse 1	84.5	111.3	97.9	132.0	103.9
C. Spill (kcfs)	1.6	21.5	16.5	21.2	11.3
% of River Flow	1.4	20.1	14.3	13.8	9.5
D. Water Temp *	71.7	72.1	71.9	71.6	69.3
E. % Saturation *	102.3	103.8	103.1	106.6	104.6

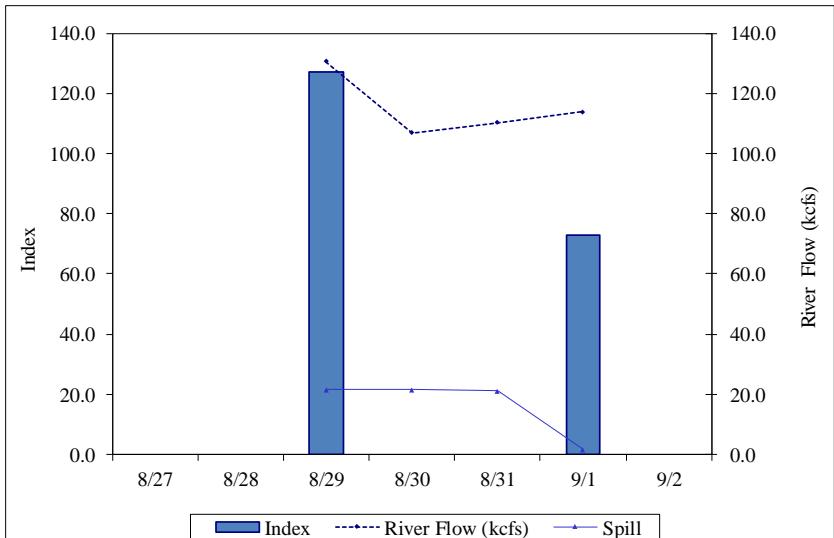
* TDG and water temp data from USGS forebay sensors.

% SAMPLE COMPOSITION	This Week	Last Week
YEARLING CHINOOK	0.0%	0.0%
SUBYEARLING CHINOOK	100.0%	100.0%
CHINOOK FRY	0.0%	0.0%
UNCLIPPED STEELHEAD	0.0%	0.0%
CLIPPED STEELHEAD	0.0%	0.0%
COHO	0.0%	0.0%
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	
8/27																	
8/28																	
8/29	50.0%	0	0.0	0.0	0	0	53	0.0	0.0	106	127	0	0.0	0.0	0	0	0
8/30																	
8/31																	
9/1	50.0%	0	0.0	0.0	0	0	36	0.0	0.0	72	73	0	0.0	0.0	0	0	0
9/2																	
Weekly		0	0.0	0.0	0	0	89	0.0	0.0	178	200	0	0.0	0.0	0	0	0
Season to date		4,676	2.3	0.1	47,784	114,702	4,151	1.5	0.1	96,054	168,828	484	1.9	0.2	5,780	13,654	

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		
8/27																							
8/28																							
8/29	50.0%	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	
8/30																							
8/31																							
9/1	50.0%	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	
9/2																							
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		333	2.1	0.0	4,386	11,063	1,123	6.5	0.2	12,088	29,055	1,142	3.2	0.2	24,151	60,007							

TOTAL						
End Date	Sample Rate	# Smpld	% Desc	% Mort	# Coll	Index
8/27						
8/28						
8/29	50.0%	53	0.0	0.0	106	127
8/30						
8/31						
9/1	50.0%	36	0.0	0.0	72	73
9/2						
Weekly		89	0.0	0.0	178	200
Season to date		11,909	2.5	0.1	190,243	397,309



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
8/27									
8/28									
8/29	0	0.0	0	1	0.0	2	0	0	0
8/30									
8/31									
9/1	0	0.0	0	1	0.0	2	0	0	0
9/2									
Weekly	0	0.0	0	2	0.0	4	0	0	0
Season to date	320	0.3	4,161	47	0.0	533	0	0	0

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

Subyearling	DESCALING				INJURY					Other Conditions			
Chinook	SAMPLE #	3-19%	>20%	Pred. Desc.	BODY	EYE	HEAD	OP	FIN	POPEYE	PINK FIN	Fin Discolor.	FIN HEM
This Week	89	4.5%					1.1%		4.5%				9.0%
Last Week	140	2.9%		0.7%				0.7%	1.4%				6.4%

SECTION 3. Incidental Summary

	Bass Largemouth	Bass Smallmouth	Bluegill and Pumpkinseed	Bullhead	Carp	Catfish, Channel	Chiselmouth	Crappie species
This Week	0	3	0	0	1	0	0	0
Season to Date	1	37	11	1	3	1	0	6

	Dace - Longnose	Dace - Speckled	Mini-Jack/Jack Chinook	Goldfish	Lamprey Adult	Northern Pikeminnow	Peamouth	Perch Yellow
This Week	0	0	0	0	0	0	0	0
Season to Date	0	0	3	1	1	1	0	362

	Redside Shiner	Sand Roller	Sculpin species	Stickleback 3 spine	Sucker species	Shad Adult	Shad Juvenile	Sturgeon White
This Week	0	0	0	0	0	5	37,343	0
Season to Date	0	0	9	6	1	13	139,094	0

	Trout Bull	Trout Cutthroat	Trout Rainbow	Walleye	Whitefish Mountain	Siberian Prawn	Chum Salmon	Banded Killifish
This Week	0	0	0	4	0	0	0	0
Season to Date	0	0	0	35	6	122	0	5

SECTION 4. Facility Operations

Condition Monitoring at John Day Dam is adhering to the warm river water temperature sampling mode. Samples will continue to target 100 of the predominant out-migrant smolt, currently Subyearling Fall Chinook (100% composition), on Mondays and Thursdays until daily average river water temperatures fall below 69.5 deg. F. Samples are taken from the Juvenile Bypass System between approximately 0700 and 1300 hrs and the Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars and in the sample holding tank was high for the week and consisted mostly of aquatic vegetation, bryozoans, a few sticks, plastic, and some terrestrial vegetation.

SECTION 5. Research

A genetic fin clip sample was collected from two Pacific Lamprey ammocoete during this report period. Both specimens were transforming from ammocoete to macropthalmia (eyes growing and mouth changing from filter feeding to parasitic form).

SECTION 6. Pictures



Pacific lamprey (*Entosphenus tridentatus*) ammocoete, approximately 135 mm total length, sampled at the John Day Dam Smolt Facility on 29 August, 2022. Note the specimen is in the process of transforming from the filter feeding larval form to the parasitic macrophtalmia form.



Detail of lamprey transformer above, note developing eyes just below surface of skin and the mouth becoming more circular.