



United States Department of the Interior

FISH AND WILDLIFE SERVICE

CA-NV Fish Health Center
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Memorandum

DATE: May 28, 2024

TO: Interested Parties

FROM: Ron Stone, Fish Biologist – CA-NV Fish Health Center

The California-Nevada Fish Health Center (Center) works collaboratively with the Service's Arcata Fish and Wildlife Office (AFWO) and the Karuk and Yurok tribes to monitor the prevalence of *Ceratonova shasta* infections in juvenile salmon in the Klamath River. The Center coordinates this annual monitoring project, provides laboratory support, and generates an annual summary report for the study. AFWO and tribal biologists are responsible for collecting fish samples for the Center.

For the 2024 outmigration season, the Center will strive to provide Quantitative Polymerase Chain Reaction (QPCR) testing of juvenile Chinook salmon collected from the mainstem Klamath River in a timely manner. The goal is to provide estimates of *C. shasta* prevalence of infection (POI) and DNA copy number to managers during the outmigration season.

Prevalence of infection is the measure used in medicine and epidemiology to define individuals affected by a disease at a particular point in time, within a given sample set. Also known as Point Prevalence, it describes the proportion (percentage) of a group that has the condition (infection) at a specific point in time. The quantity of parasite DNA (DNA copy number) is provided, when applicable, to evaluate the parasite load within the fish.

To date, QPCR testing has been performed for fish collected from Fall Creek hatchery February 2 and April 4, 2024. Testing has also been performed on juvenile chinook collected in the mainstem Klamath River March 19 through April 16 in the reaches between Iron Gate Dam and the Salmon River (K5 through K3 reaches).

Table 1. Prevalence of infection (POI) of *Ceratonova shasta* in juvenile Chinook salmon sample at the Fall Creek hatchery February 2 and April 4, 2024. Additionally, juvenile Chinook salmon captured in the Iron Gate Dam to Salmon River reaches March 19 – April 16, 2024.

Sample Week	Collection Date	Reach/Location	No. of Fish Collected	No. of Fish Positive	<i>C. shasta</i> POI
	2/24, 4/4	Fall Creek Hatchery	58	0	0%
1	3/19 – 3/20	K5, K4	30	0	0%
2	3/26 – 3/28	K5, K4	27	0	0%
3	4/1 – 4/5	K5, K4, K3	60	0	0%
4	4/8 – 4/12	K5, K4, K3	38	0	0%
5	4/15 – 4/16	K5, K3	30	0	0%