



United States Department of the Interior



FISH AND WILDLIFE SERVICE

CA-NV Fish Health Center
24411 Coleman Hatchery Road
Anderson, CA 96007

MEMORANDUM

DATE: 6/15/2007

TO: Klamath Fish Health Distribution List

FROM: Ken Nichols
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SUBJECT: 2007 Klamath River Pathogen Monitoring

As a component of Klamath River fish health assessment the California-Nevada Fish Health Center is examining juvenile Klamath River Chinook Salmon to monitor the incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection. Fish are collected by biologists with the Karuk Tribe, Yurok Tribe, Hoopa Tribe and US Fish and Wildlife Service. The fish health center is providing laboratory support for the project. Sampling began the week of April 15, 2007 and will continue into mid-August.

The *Ceratomyxa shasta* QPCR assay has been completed for Chinook collected in weeks 1-7 (April 15 – June 2), and *Cs* was detected in 13% (39/305) of Chinook tested. The *Parvicapsula minibicornis* QPCR assay has been completed for Chinook collected in weeks 1-3 (April 15 – May 5), and *Pm* was detected in 73% (51/70) Chinook tested. The next update of this data will be available after June 25.

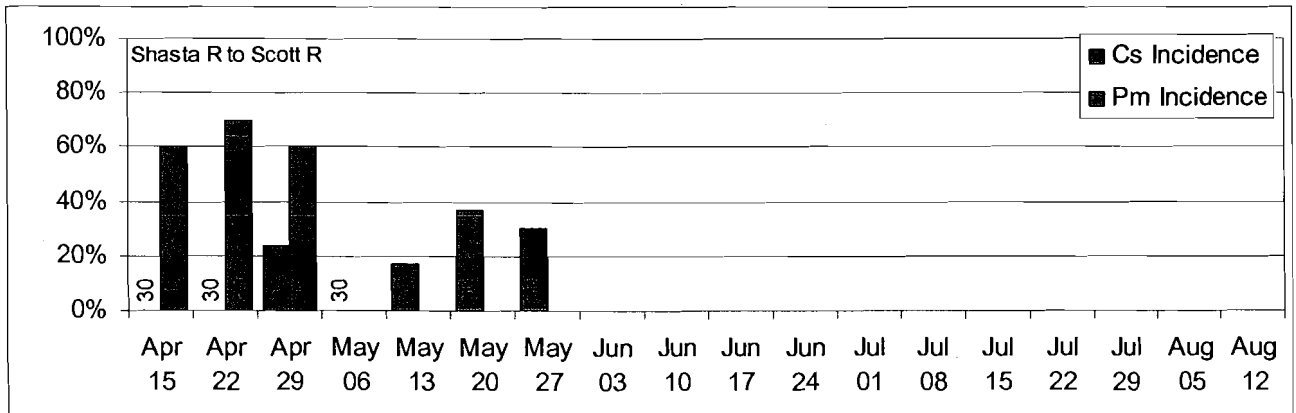


Figure 1. Incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook Salmon captured in the Shasta to Scott River Reach. Number of fish assayed for each pathogen is indicated at the base of each bar. Assays for Cs were completed through May 27, while Pm assays were completed through Apr 29.

Table 1. Incidence of *Ceratomyxa shasta* in Chinook salmon by Quantitative Polymerase Chain Reaction (QPCR). All data is preliminary and subject to revision.

Reach	Apr 15	Apr 22	Apr 29	May 6	May 13	May 20	May 27	Jun 3	Jun 10	Jun 17	Jun 24	Jul 1	Jul 8	Jul 15	Jul 22	Jul 29	Aug 5	Aug 12
IGD-Shasta			0/5		2/30	0/30	5/30											
					7%	17%												
Shasta-Scott	0/30	0/30	7/30	0/30	5/30	11/30	9/30											
			23%		17%	37%	30%											
Salmon-Trinity																		
Trinity-Estuary																		
Weekly Total	0/30	0/30	7/35	0/30	7/60	11/60	14/60											
			20%		12%	18%	23%											

Table 2. Incidence of *Parvicapsula minibicornis* in Chinook salmon by Quantitative Polymerase Chain Reaction (QPCR). All data is preliminary and subject to revision.

Reach	Apr 15	Apr 22	Apr 29	May 6	May 13	May 20	May 27	Jun 3	Jun 10	Jun 17	Jun 24	Jul 1	Jul 8	Jul 15	Jul 22	Jul 29	Aug 5	Aug 12
IGD-Shasta																		
Shasta-Scott	18/30	21/30	12/20															
	60%	70%	60%															
Salmon-Trinity																		
Trinity-Estuary																		
Weekly Total	18/30	21/30	12/20															
	60%	70%	60%															