MEMORANDUM

DATE: **8/31/2009**

TO: **Nick Hetrick, Arcata FWO**

FROM: **Kimberly True**
CA-NV Fish Health Center
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SUBJECT: **2009 Klamath River Salmonid Health 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 CA/Nev Fish Health Center is providing laboratory support for the project. Sampling began the week of April 20 and continued through August 10.

Pathogen testing by QPCR has been performed for fish collected through 10 August; with the exception of one estuary sample set of 30 fish collected the week of July 27, which is pending laboratory analysis. Data are summarized in Figures 1-5. *Ceratomyxa shasta* has been detected in 45% (489/1090) and *Parvicapsula* minibicornis has been detected in 80% (873/1090) of Klamath Chinook juveniles tested this field season.

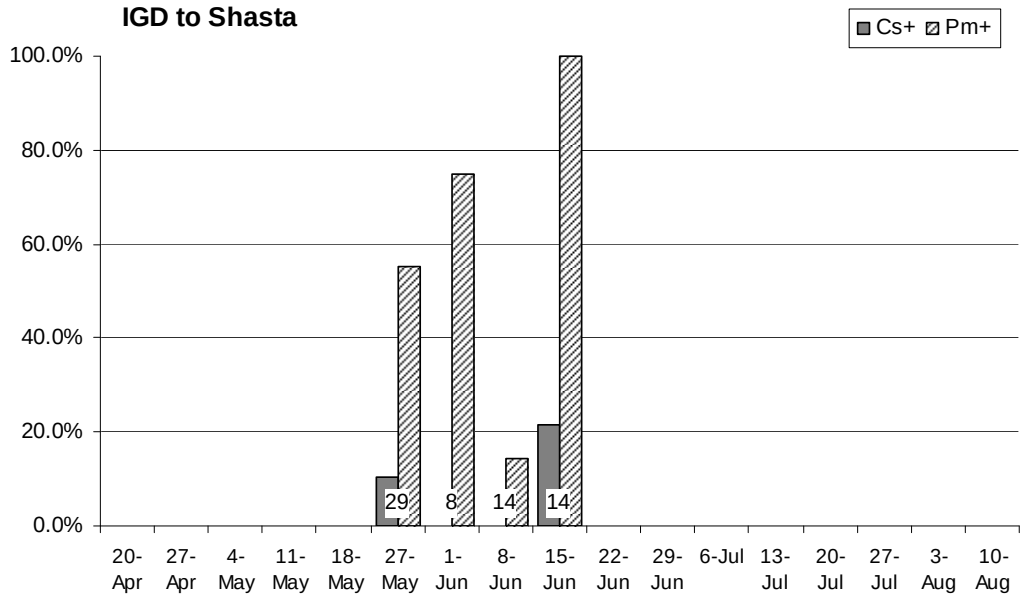

Figure 1. Weekly incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook salmon captured in K5 reach on the Klamath River (Iron Gate Dam to Shasta River). Sample numbers collected each week are displayed at the bottom of each column; Cs was not detected on 1 June and 8 June. All data are preliminary and subject to revision.

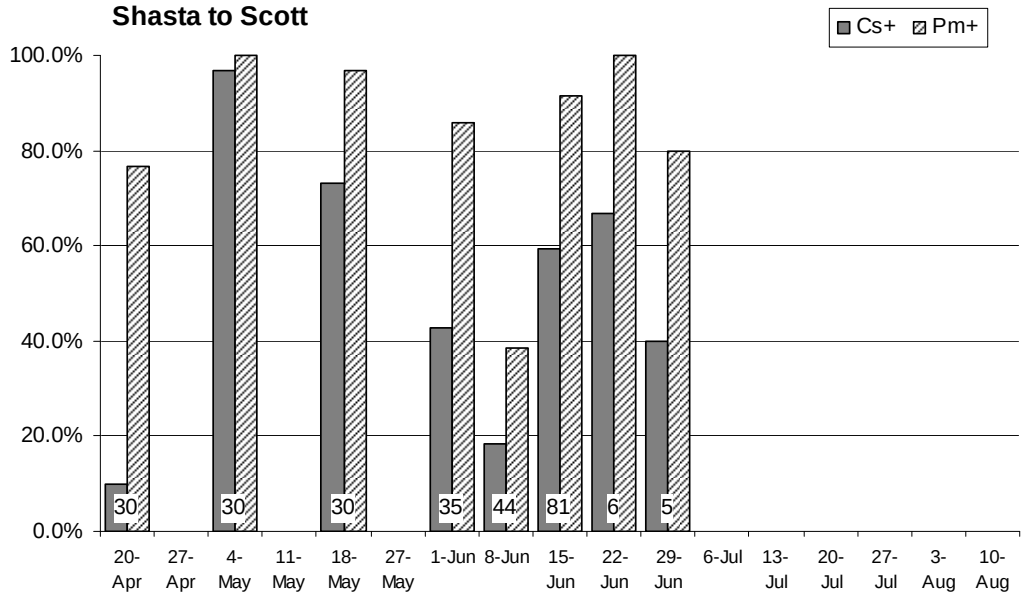

Figure 2. Weekly incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook salmon captured in K4 reach on the Klamath River (Shasta to Scott River). Sample numbers collected each week are displayed at the bottom of each column. All data are preliminary and subject to revision.

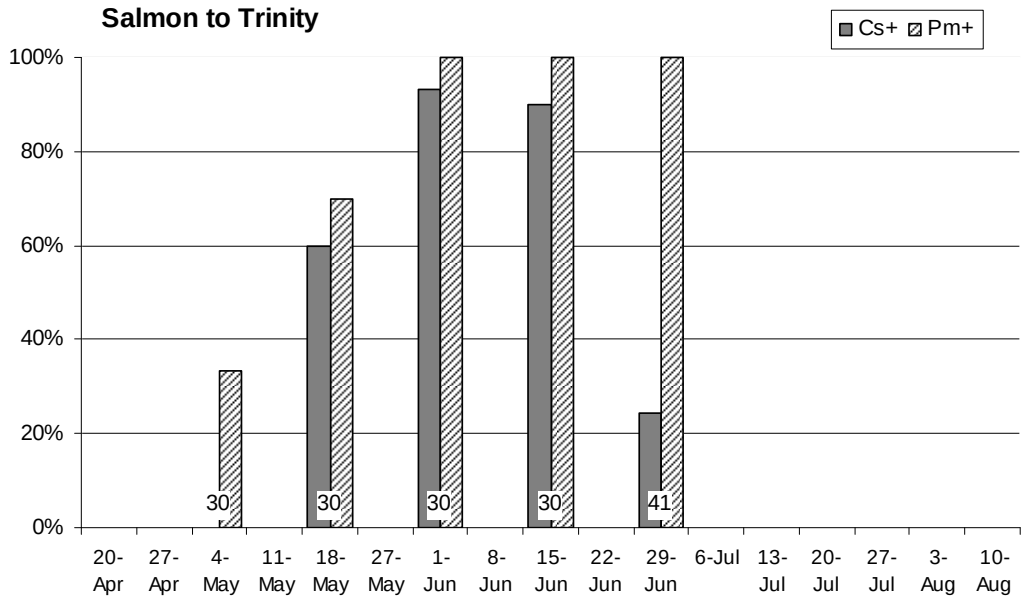

Figure 3. Weekly incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook salmon captured in K2 reach on the Klamath River (Salmon River to Trinity River confluence). Sample numbers collected each week are displayed at the bottom of each column; Cs was not detected on 4 May. All data are preliminary and subject to revision.

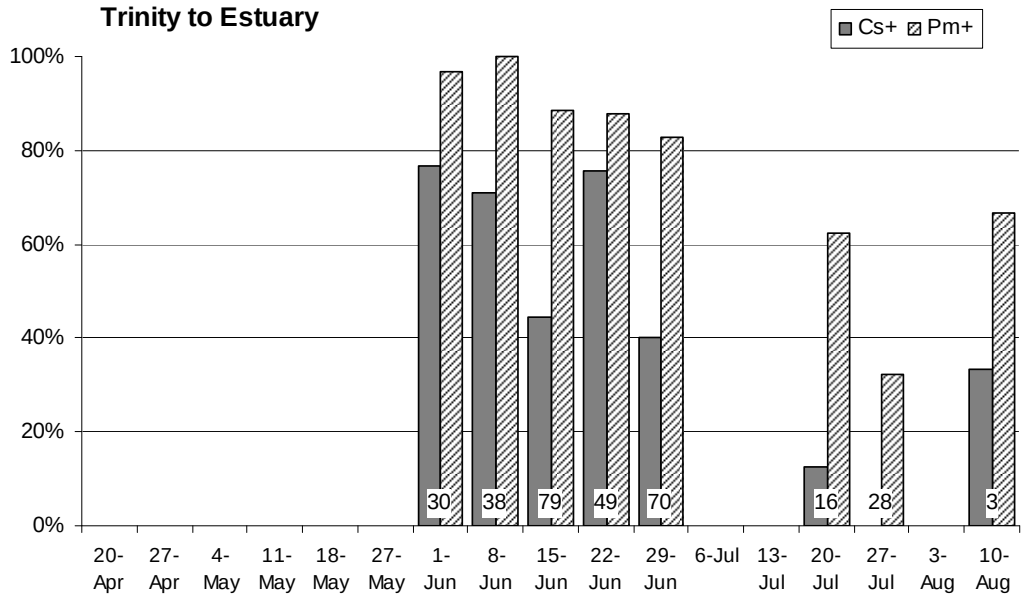

Figure 4. Weekly incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook salmon captured in K1 reach on the Klamath River (Trinity River confluence to Estuary). Sample numbers collected each week are displayed at the bottom of each column; Cs was not detected on 27 June. All data are preliminary and subject to revision.

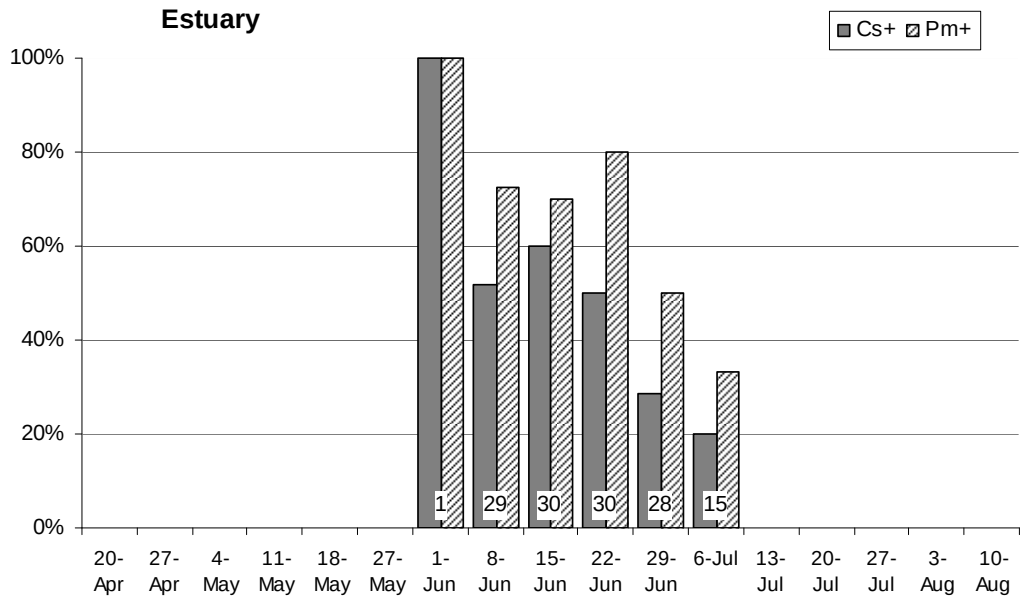

Figure 5. Weekly incidence of *Ceratomyxa shasta* and *Parvicapsula minibicornis* infection in juvenile Klamath River Chinook salmon captured in K0 reach (Estuary). Sample numbers collected each week are displayed at the bottom of each column. All data are preliminary and subject to revision.