

Title:

Pathogen Screening Of Naturally Produced Yakima River Spring Chinook Smolts

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Summary of Presentation:

In 1999, the Cle Elum Hatchery began releasing spring chinook smolts into the upper Yakima River to increase natural production. Part of the evaluation of this program is to monitor whether introduction of hatchery produced smolts would impact the prevalence of specific pathogens in the naturally produced spring chinook smolts. Increases in prevalence of any of these pathogens could negatively impact the survival of these fish. In 1998, 2000, 2001 and 2002 naturally produced smolts were collected at the Chandler smolt collection facility on the lower Yakima River for monitoring. Samples were taken from mid to late out migration, with a target of 200 fish each year. The pathogens monitored were infectious hematopoietic necrosis virus, infectious pancreatic necrosis virus, viral hemorrhagic septicemia, *Flavobacterium psychrophilum*, *Flavobacterium columnare*, *Aeromonas salmonicida*, *Yersinia ruckeri*, *Edwardsiella ictaluri*, *Renibacterium salmoninarum* and *Myxobolus cerebralis*. In addition, the fish were tested for *Ceratomyxa shasta* spores in 2000 and 2001. None of the viral or parasitic pathogens have been detected. In some years low levels of the bacterial pathogens, *F. psychrophilum* and *F. columnare*, have been detected in the naturally produced smolts. *R. salmoninarum*, the causative agent of Bacterial Kidney disease, is detected each year, but levels have remained generally low, with no clinical signs of disease. Fluctuations in pathogen prevalence between years has been minimal and, to date, these changes are attributed to normal variation in the population.