State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
Fish Health Laboratory
2111 Nimbus Road
Rancho Cordova, CA 95670
Phone: (916) 358-1479
Fax: (916) 358-2825

FISH PATHOLOGIST REPORT

Location
Iron Gate Hatchery

Date
May 18, 2009

Species
Chinook smolts

Ponds
Sampled from B series

Fish Health Assessment

Twenty fish were randomly selected from B series (the first group ready for release). Fish were sampled from mid- and upper sections of pond. Fish scored very well and appeared in excellent health. The average weight of fish was 4.9 grams and the average length was 72.7 mm. The average length-weight condition factor was 1.3 (see raw data on accompanying Excel spreadsheet). All but 1 fish examined had perfect fins (minor clubbing on one) and all fish had seemingly perfect skin, gills, eyes, pseudobranchs, thymus, gastrointestinal tracts (all had food in tract), livers and kidneys. Four fish of the twenty had been ad clipped (adipose fin removed) by the new marking trailer (25% of fish have adipose fin removed). The lesion from ad clip was clean and had no visible bacterial or fungal infection. The average hematocrit (packed blood cell volume) was 43.3% (in acceptable range) and the average plasma protein concentration was 4.05 g/dL (also in acceptable range). The average mesenteric fat score was 1.6, indicating a proper amount of reserves. All fish scored a "1" for smolt indext indicating partial silvering, parr marks still visible. The overall score was 0.05 (a perfect score is 0.00). Fish were examined on April 28, 2009 for a slight increase in mortality. Light amounts of external and systemic bacteria, including the causative agent for cold water disease (*Flavobacterium psychrophilum*) were found. Fish completed 3 potassium permanganate flush treatments and 10 days of oxytetracycline medicated feed. Losses went down soon after potassium permanganate treatments. No bacteria or parasites were found during this Health Assessment. These fish appear ready for release.

Comments
Water temp is 54°F.

Submitted By: Mark Clifford, Ph.D., Associate Fish Pathologist, CDFG