

Stanislaus River Juvenile Outmigration Summary #3

January 9 - January 21, 2003

Oakdale:

The screw trap resumed fishing at Oakdale on the evening of January 10 in conjunction with a rain event. Total catch between January 11 and January 21 was 7,217 Chinook increasing the season total to 7,778. Total catch for the season is similar to total catch during the same period in 2002, but slightly less than the catch in 2001. Mean length for the week was 34.8 mm forklength, which was a 0.5 mm increase over the previous week. Mean weight did not increase over the 11-day period and remained at 0.3 g. Forklengths ranged between 28 mm and 40 mm, and catch fluctuated between 18 and 1,944 Chinook. Due to significant fluctuations in catch, the screw trap will continue to sample until the numbers stabilize. Past data indicates this will most likely occur at the beginning of March, unless a freshet event occurs.

As a result of the rain event, daily flow at Orange Blossom Bridge (OBB) peaked for two days at approximately 365 cfs, which was only a 60 cfs increase. Following the rain event, flows were reduced by approximately 90 cfs to 275 cfs over a 6-day period, with the most significant decrease occurring between January 13 and 15. Turbidity increased to 5.27 NTU as the flow at OBB peaked, but then decreased to 1.6 NTU two days later. Temperature ranged between 48 and 51 degrees Fahrenheit during the sampling period.

Although we eluded to a "thinning" response in the last summary, the fluctuation in catch observed during this sampling period was most likely a response to the change in flow and/or turbidity. We observed a peak in catch of 1,944 Chinook following an increase in turbidity and a 60 cfs increase in flow. The Chinook catch remained high during the two days flow and turbidity were elevated. As the flow and turbidity began to subside to levels observed prior to the rain event, catch began to decrease as well. Another spike in catch occurred on January 16 and January 17 following a reduction in flow by almost 70 cfs between January 13 and January 15. After the flow stabilized at approximately 275 cfs, catch significantly dropped by more than 1,000 Chinook to only 20 Chinook for the remainder of the sampling period.

Four trout were captured during the sampling period increasing the season total to 7 trout. The trout ranged from 110 mm to 203 mm with an average forklength of 156 mm, which is somewhat unexpected since trout captured are normally near 200 mm forklength. The dates of capture, forklength and smolt indices are shown in the table below:

Date	Species	Length (mm)	Smolt Index
01/12/03	RBT	158	3
01/12/03	RBT	203	5
01/15/03	RBT	153	4
01/18/03	RBT	110	3

Caswell:

Two tandem 8' rotary screw traps were installed and began fishing in the Stanislaus River at Caswell State Park (RM 8.6) on January 17. The traps sampled for a four-day period and no Chinook or trout were captured. The traps were raised on January 21 and will continue fishing 3-4 days per week until catch or flow increases significantly. Past data suggests that Chinook do not migrate past Caswell until mid-February, therefore we do not expect to see significant numbers of Chinook in the lower river until then unless there is a significant freshet event.