

## Stanislaus River Juvenile Outmigration Summary # 9

**March 10<sup>th</sup> - March 16<sup>th</sup>, 2003**

*Note: Data is preliminary and subject to revision.*

### **Oakdale:**

Between March 10<sup>th</sup> and March 16<sup>th</sup> 1,744 Chinook were captured increasing the season total to 84,037, which is almost 19,000 fewer than in 2002. Daily catch fluctuated between 23 and 1,143 Chinook during the week. Mean forklength was 45.4 mm (range: 29 mm to 89 mm), which was an increase of 3.4 mm over the previous week. However, mean weight was similar to the previous week at 0.6 g. Three rainbow trout were captured between March 13<sup>th</sup> and March 16<sup>th</sup> increasing the season total to 19 at Oakdale. Please refer to the table below for date of capture, forklength and smolt indices.

Date	Species	Forklength (mm)	Smolt Index
03/13/03	RBT	255	5
03/14/03	RBT	425	5
03/16/03	RBT	33	2

Flow at Orange Blossom Bridge (OBB) fluctuated between 459 cfs and 471 cfs between March 10<sup>th</sup> and March 14<sup>th</sup> due to varying releases at Goodwin Dam (GDW). On March 15<sup>th</sup> the flow at OBB increased by approximately 25 cfs to 491 cfs following a rain event, and then decreased to 480 cfs the following day. It appears that a discrepancy remains between the GDW and OBB gauges (OBB reading less than GDW reading); however, the difference is currently less than 50 cfs. Turbidity ranged between 0.7 NTU and 7.4 NTU and temperature fluctuated between 53 and 56 degrees Fahrenheit. Flow, turbidity and Chinook catch peaked simultaneously during a rainfall event on March 15.

Three trap efficiency releases were conducted on three consecutive nights using the traditional method (check livebox ~ 1 hour after release). A total of 256 natural Chinook marked caudal fin green (CFG) were released between March 11<sup>th</sup> and March 13<sup>th</sup>. Flow at release ranged between 468 and 471 cfs at OBB and turbidity was between 1.0 NTU and 1.5 NTU at Oakdale. The pooled trap efficiency was 9.4%, which is similar to previous releases conducted at similar flows this season using the same release method. Mean length for the three groups was 42.6 mm at release and 41.5 mm at recapture.

Two livebox efficiency tests were conducted on the nights of March 11<sup>th</sup> and March 13<sup>th</sup> at Oakdale. Each test was conducted by placing a known number of natural Chinook marked caudal fin orange (CFO) in the livebox overnight. The percentage remaining in the morning represented livebox efficiency. Flow at OBB was 468 cfs during both tests and estimated livebox efficiency was 70.7% and 82.6%, which is within the range of other tests conducted this season. Combined mean length for the groups was 41.4 mm at release and 41.9 mm at recapture.

### **Caswell:**

The Caswell traps resumed sampling the evening of March 10<sup>th</sup>. After 4 days of sampling, the traps were raised due to consistently low trap catches, however, they were lowered again the following morning (March 15<sup>th</sup>) in order to sample under varying environmental conditions caused by the rain event. Catch increased from 31 to 58 Chinook immediately following the rain event. Between March 11<sup>th</sup> and March 16<sup>th</sup> a total of 174 Chinook were captured increasing the season total to 8,346, which is almost 8,000 more than in 2002 and 7,200 less than 2001. Daily catch fluctuated between 17 and 58 Chinook. Forklengths ranged between 31 mm and 86 mm, and mean length was 62.0 mm. Mean length at Caswell increased over 6 mm from the

previous week, and was 17 mm greater than mean length at Oakdale for the week. The difference in length between the two sites was also observed in previous years. Mean weight increased 0.8 g over the previous week to 2.6 g. Three trout were caught between March 10<sup>th</sup> and March 16<sup>th</sup> increasing the season total to four. Please refer to the table below for date of capture, forklength and smolt indices.

Date	Species	Forklength (mm)	Smolt Index
03/12/03	RBT	265	5
03/14/03	RBT	280	5
03/16/03	RBT	198	4

Flow at Ripon (RIP) fluctuated between 493 cfs and 573 cfs. While Goodwin Dam releases remained stable, flow at RIP increased by approximately 65 cfs in response to a rain event that occurred on the evening of March 14<sup>th</sup>. Turbidity fluctuated between 3.4 NTU and 4.5 NTU, and temperature fluctuated between 54 and 59 degrees Fahrenheit.

Two trap efficiency releases were conducted on the nights of March 12<sup>th</sup> and March 13<sup>th</sup> using the traditional method (check livebox ~ 1 hour after release). A total of 47 natural Chinook marked caudal fin pink (CFP) were released. Flow at release ranged between 493 cfs and 494 cfs at RIP and turbidity was between 3.4 NTU and 4.0 NTU at Caswell. The pooled trap efficiency was 10.6%, which is similar to previous releases conducted at similar flows this season using the same release method. Combined mean length for the two groups was 61.2 mm at release and 58.1 mm at recapture. No livebox efficiency tests were conducted due to low catch.