

Stanislaus River Juvenile Outmigration Summary # 10

March 17th - March 23rd, 2003

Note: Data is preliminary and subject to revision.

Oakdale:

Between March 17th and March 23rd 2,328 Chinook were captured increasing the season total to 86,365. Although fewer Chinook have been captured to date in 2003 as compared to recent years, preliminary estimates of abundance suggest that there are a greater number of outmigrants. The lower catch in 2003 is most likely due to differences in capture efficiency between years. Daily Chinook catch fluctuated between 40 and 532 during the week. Mean forklength was 54.1 mm (range 31 to 88 mm), which was an increase of 8.7 mm over the previous week. Mean weight increased to 1.5 g, which was a 0.9 g increase over the previous week. A 126 mm trout (SI 4) was captured on March 18th increasing the season total to 20 at Oakdale.

Flow at Orange Blossom Bridge (OBB) decreased from 469 cfs to 439 cfs on March 18th, and then fluctuated between 435 cfs and 441 cfs for the remainder of the week. Turbidity ranged between 1.2 NTU and 4.2 NTU and temperature fluctuated between 51 and 57 degrees Fahrenheit. A spike in turbidity from 1.5 NTU to 4.2 NTU was observed on March 22nd following a rain event.

Three trap efficiency releases were conducted on three consecutive nights using the traditional method (check livebox ~ 1 hour after release). A total of 855 natural Chinook marked caudal fin green (CFG) were released between March 18th and March 20th. Flow at release ranged between 435 and 439 cfs at OBB and turbidity was between 1.2 NTU and 1.7 NTU at Oakdale. The pooled trap efficiency was 17.1%, which was higher than past releases using fish of similar size. Combined mean length was 52.1 mm at release and 50.9 mm at recapture.

Three livebox efficiency tests were also conducted between March 18th and March 20th. 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. Estimated livebox efficiencies were 93.9%, 96.0%, and 89.4%, which were slightly higher than previous tests conducted this year. However, the size of the test fish has increased significantly over the last few weeks. Combined mean length for the groups was 52.3 mm at release and 51.6 mm at recapture.

Caswell:

Between March 17th and March 23rd a total of 1,546 Chinook were captured increasing the season total to 9,892. Total Chinook catch for the week increased by almost 1,400 over the previous week. Daily catch ranged between 35 and 505 Chinook during the week. Mean forklength was 66.5 mm (range: 38 to 95 mm), which was a 5 mm increase over the previous week. Mean weight increased by 1.6 g to 4.2 g. A 260 mm trout (SI 5) was captured on March 18th increasing the season total to 5 at Caswell.

Flow at Ripon (RIP) gradually decreased from 466 cfs to 535 cfs throughout the week. Turbidity fluctuated between 2.6 NTU and 5.1 NTU, and temperature fluctuated between 54 and 58 degrees Fahrenheit. A peak in catch from 231 to 505 Chinook was observed simultaneously with a peak in turbidity, which occurred several days after a rain event.

Three trap efficiency releases were conducted on three consecutive nights using the traditional method (check livebox ~ 1 hour after release). A total of 231 natural Chinook marked caudal fin pink (CFP) were released on March 18, and a total of 391 natural Chinook marked caudal fin yellow (CFY) were released on March 19th and 20th. Flow at release ranged between 466 cfs and 501 cfs at RIP and turbidity was between 2.6 NTU and 4.1 NTU at Caswell. The pooled trap efficiency was 17.2%, which was higher than past releases using fish of similar size. However, we observed higher than expected results at Oakdale as well. Combined mean length for the groups was 64.7 mm at release and 62.3 mm at recapture.

Two livebox efficiency tests were conducted on the nights of March 19th and March 20th at Caswell. Each test was conducted by placing a known number of natural Chinook marked CFP in the livebox overnight. The percentage remaining in the morning represented livebox efficiency. Flow at RIP ranged between 466 cfs and 477 cfs and the estimated livebox efficiencies were 87.6%, and 88.1%. Combined mean length for the groups was 63.8 mm at release and 64.5 mm at recapture.