



May 10 through May 23, 2004

## Chinook Outmigration

The traps fished daily between May 10 and May 23 and captured only 38 Chinook salmon, increasing the season total to 508. Daily catch ranged between 0 and 16 Chinook ( $\mu = 3$ ; Figure 1). Individual fork-lengths ranged from 73 mm to 103 mm ( $\mu = 86$  mm; Figure 2).

During the last seven days of the sampling period zero Chinook were captured. The last Chinook captured in the traps (May 16) occurred three days after flow at La Grange began to decrease from approximately 630 cfs to 180 cfs (Figure 1).

No trout were captured during the sampling period.

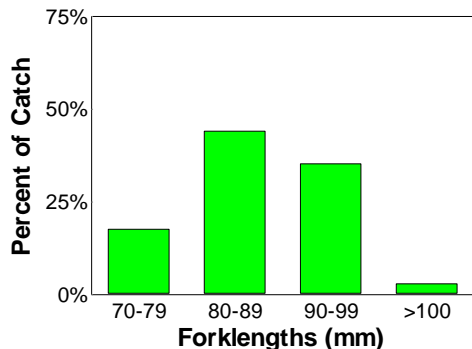


Figure 2. Length frequency of Chinook captured at Grayson between May 10 and May 23.

## Environmental Data

Flow at La Grange (LGN) ranged between 178 cfs and 631 cfs between May 10 and May 23. Releases from LGN gradually decreased from approximately 630 cfs on May 13 to 180 cfs by May 18 (Figure 1).

The Modesto gauge was temporarily operational between May 11 and May 19 and daily average flows during this ranged between 99 cfs and 240 cfs. The gauge was down again from May 19 through May 23.

Turbidity at Grayson varied between 1.8 NTU and 5.6 NTU and instantaneous water temperature fluctuated between 63°F and 69°F during the sampling period.

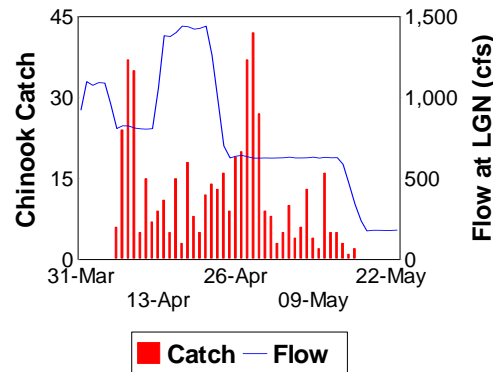


Figure 1. Daily Chinook catch and Tuolumne River flow at La Grange (LGN).

Two trap efficiency releases were conducted during the sampling period. The first release was conducted on May 11 at a flow of 631 cfs at La Grange and consisted of 1,971 Merced River Hatchery fish marked anal fin green. Trap efficiency was estimated to be 5.3%. Mean length at release was 86.0 mm and 84.5 mm at recovery.

The second release was conducted on May 18 and consisted of 1,996 Merced River Hatchery fish marked dorsal fin green. Flow at La Grange was 178 cfs during this evaluation and trap efficiency was estimated at 8.6%. Mean length at release was 88.2 mm and 86.3 mm at recovery.



Technician timing revolutions of the cone (i.e. how long it takes for cone to complete 3 revolutions).



May 10 through May 23, 2004

## Other Species

A total of 14 non-salmonid species were captured in the traps during the sampling period including bluegill, channel catfish, fathead minnow, golden shiner, lamprey, largemouth bass, mosquito fish, inland silverside, red shiner, Sacramento pikeminnow, Sacramento sucker, smallmouth bass, threadfin shad and white catfish. Of these, white catfish continue to be the most abundant individuals captured ( $n = 132$ ) and were 29 mm to 255 mm in length.

The second most abundant non-salmonid species continued to be young-of-the-year largemouth bass ( $n = 55$ ) that measured between 15 mm and 39 mm. Daily catch of other non-salmonids species ranged between 1 and 20 individuals.



**Top Photo:** Example of an inland silverside.

**Bottom Photo:** Example of threadfin shad.