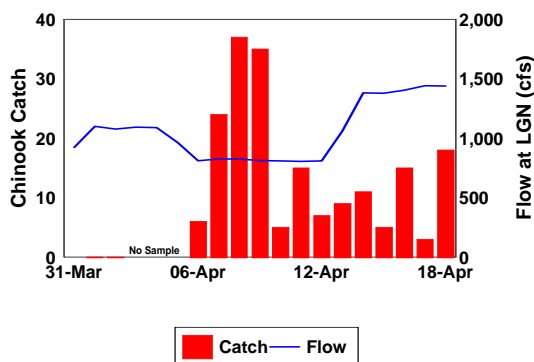




March 31 through April 18, 2004

## Chinook Outmigration

Two side-by-side rotary screw traps were installed by CDFG at the Grayson sampling site on March 31. This is the same location that has been used since 1999, and is approximately 1.5 miles above the location used from 1995 through 1998. Unexpectedly, CDFG staff had to be reassigned to other field sampling efforts and we agreed to continue the sampling for the remainder of this season. For reasons related to potential liability issues, CDFG's traps were removed and replaced by TID's traps on April 9 when we began sampling. Many thanks to CDFG for their assistance in deploying TID's traps, sharing the data that they collected during the first week of sampling, and for providing key information about past sampling experience at this location.



A trap efficiency release was conducted on April 13 and consisted of 1,992 Merced River hatchery fish marked dorsal fin green. The fish were released during flows of 1,059 cfs at La Grange (LGN). Trap efficiency was estimated to be 4.2%, and is within the range of 1% to 14% reported by CDFG for evaluations conducted from 1999 through 2001. Mean forklength at release was 79.2 mm and 77.3 mm at recovery.

## Environmental Data

Releases from La Grange ranged from 805 cfs to 1,422 cfs between March 31 and April 18. Flow at Modesto ranged from 761 cfs to 1,559 cfs between April 1 and April 5. Data is not available from the Modesto gauge after April 5 because the gauge has been down for relocation.

Turbidity at Grayson varied between 2.4 NTU and 12.3 NTU. Instantaneous water temperature fluctuated between 56°F and 62°F during the sampling period ( $\mu = 59^\circ\text{F}$ ).



SPC and CDFG installing the TID screw traps at Grayson.

A total of 190 Chinook were captured during 15 days of sampling between March 31 and April 18. Daily catches ranged between 0 and 37 Chinook ( $\mu = 13$ ). Individual Chinook forklengths ranged from 60 mm to 100 mm ( $\mu = 80.0$  mm).

No trout were captured.



Merced River hatchery fish marked for trap efficiency release.



Technician measuring water velocity in front of the mouth of the cone.



March 31 through April 18, 2004

## Non-Salmonid Species Captured

A total of 13 non-salmonids species were captured in the traps during the sampling period. Of these 13 species, white catfish was the most abundant species captured (226). Daily catch of white catfish ranged between 1 and 31 ( $\mu = 13$ ). The next most abundant species captured was mosquito fish ( $n = 25$ ).

Other species captured included bluegill, carp, channel catfish, green sunfish, hitch, inland silverside, red-eye bass, red shiner, lamprey and smallmouth bass. Total catch of these species ranged from 1 to 8 individuals.



White catfish captured in the traps.