

Willow Creek Downstream Migrant Trap Site
2009 In-Season Trapping Update –July 17, 2009

Synopsis: The 2009 Downstream Migrant trapping season at the Willow Creek Trap Site (river kilometer 34) is being conducted jointly by the USFWS Arcata Fish and Wildlife Office (AFWO) and the Yurok Tribal Fisheries Program (YTFFP) on the mainstem Trinity River near Willow Creek, California. The season began March 12, 2009 with the installation of two traps. A third trap was installed March 14, 2009. See attached catch summary for details of this narrative.

This summary includes data from March 12th, 2009 through July 9th, 2009 and is presented as raw catch. No expansions have been calculated at this time. Data entry is not complete for Julian Week (JW) 28, July 9th to July 15th. Heavy debris load and high flows have occasionally resulted in null sets, causing less than 21 trap days (3 traps x 7 days) in some weeks (particularly weeks 18-23 when spring rains coincided with high dam releases).

Raw daily catches of Chinook salmon (*Oncorhynchus tshawytscha*) have been captured each day sampling has occurred and most have been young-of-the-year (YOY), with more age 1+ natural Chinook salmon than in past years. Raw catch to date is almost twice the raw catch of the previous yearly high....and the season is still underway! Weekly mean Fulton's K values of YOY Chinook salmon early in the season were lower than 1.0 with an increase in condition evident over the first 4 weeks and stabilizing at slightly higher than 1.0 in the later weeks. Efficiency calibrations were conducted with freeze-branded hatchery Chinook salmon during all weeks sampled, with numerous batches of fish to address assumptions and recommendations of the downstream migrant monitoring review.

Raw daily catches of steelhead (*Oncorhynchus mykiss*) smolts (age 1+) have been steady since the beginning of trapping with hatchery steelhead showing up in JW 13 and peaking in JW 17, while natural steelhead peaked in JW 14. Steelhead smolts began the season with weekly mean Fulton's K values slightly higher than 1.0, which has dropped to lower than 1.0 as the season has progressed; this drop in condition is typical for smolts as they ready for ocean entry. Steelhead YOY numbers are present in the catch, but have yet to show signs of a peak.

Raw daily catches of coho salmon (*Oncorhynchus kisutch*) are low compared to the past 6 years, especially for natural smolts. In addition, it appears that the emigration period is later for natural coho smolts compared to previous years. Weekly mean Fulton's K value of natural coho salmon smolts have been higher than 1.0 with a slight drop in later weeks indication that the smolting process is underway. Hatchery coho smolts occurred in the catch beginning Julian Week 12 with a somewhat later peak in catch compared to previous years.

If you have any questions regarding this summary, don't hesitate to contact Bill Pinnix at (707) 822-7201.

USFWS RST Juvenile Salmonid Catch Summary for TRWC1 and TRWC2 and TRWCY

DayMin: 3/12/2009

DayMax: 7/9/2009

U.S. Fish and Wildlife Service, Arcata Field Office, 1655 Heindon Rd., Arcata, CA, 95521, (707) 822-7201

Preliminary, all data subject to revision.

| JW /Year | Week Range | *Flows (cfs) | | **Dissolved Oxygen (mg/L) | | **Water Temp (C) | | Trap Days Sampled | CHINOOK (<i>O. tshawytscha</i>) | | | | | STEELHEAD (<i>O. mykiss</i>) | | | | COHO (<i>O. kisutch</i>) | | | | | |
|---------------|---------------|--------------|-----|------------------------------|-------|---------------------|------|-------------------------|-----------------------------------|-------|---------|---------|---------|--------------------------------|-----|-------|-------|----------------------------|-------|----|---------|-------|-----|
| | | Min | Max | Min | Max | Min | Max | | YOY | | | No Clip | Ad-Clip | Total | 1+ | 1+/AD | Total | YOY | 1+ | 2+ | Ad-Clip | Total | YOY |
| 11/2009 | Mar 12-Mar 18 | | | 12.23 | 12.68 | 7.32 | 8.51 | 12 | 134 | 0 | 134 | 99 | 0 | 233 | 0 | 251 | 0 | 0 | 251 | 0 | 10 | 0 | 10 |
| 12/2009 | Mar 19-Mar 25 | | | 11.61 | 12.2 | 8.55 | 10.3 | 13 | 262 | 0 | 262 | 24 | 1 | 287 | 23 | 184 | 0 | 0 | 207 | 1 | 21 | 59 | 81 |
| 13/2009 | Mar 26-Apr 01 | | | 11.74 | 14.1 | 8.68 | 10.5 | 21 | 555 | 0 | 555 | 21 | 4 | 581 | 5 | 379 | 0 | 170 | 554 | 3 | 12 | 10 | 25 |
| 14/2009 | Apr 02-Apr 08 | | | 11.12 | 13.42 | 9.06 | 12.4 | 20 | 1,012 | 0 | 1,012 | 9 | 2 | 1,023 | 0 | 861 | 0 | 349 | 1,210 | 1 | 8 | 2 | 11 |
| 15/2009 | Apr 09-Apr 15 | | | 10.02 | 11.8 | 9.78 | 15.0 | 20 | 434 | 0 | 434 | 8 | 0 | 442 | 0 | 475 | 0 | 715 | 1,190 | 1 | 47 | 0 | 48 |
| 16/2009 | Apr 16-Apr 22 | | | 10.47 | 11.34 | 11.6 | 12.1 | 21 | 1,147 | 0 | 1,147 | 9 | 0 | 1,156 | 0 | 433 | 0 | 624 | 1,058 | 3 | 1 | 0 | 4 |
| 17/2009 | Apr 23-Apr 29 | | | 10.95 | 11.58 | 9.79 | 11.4 | 21 | 2,859 | 0 | 2,859 | 0 | 3 | 2,862 | 0 | 591 | 0 | 1,146 | 1,737 | 3 | 3 | 12 | 18 |
| 18/2009 | Apr 30-May 06 | | | 10.1 | 10.63 | 11.2 | 12.5 | 12 | 2,034 | 2 | 2,036 | 3 | 3 | 2,042 | 1 | 280 | 0 | 625 | 906 | 4 | 12 | 49 | 65 |
| 19/2009 | May 07-May 13 | | | 9.11 | 10.68 | 12.2 | 15.3 | 12 | 1,140 | 0 | 1,140 | 3 | 0 | 1,143 | 4 | 84 | 0 | 132 | 220 | 1 | 5 | 22 | 28 |
| 20/2009 | May 14-May 20 | | | 9.12 | 10.35 | 14.5 | 15.4 | 13 | 2,765 | 0 | 2,765 | 0 | 0 | 2,765 | 0 | 46 | 0 | 66 | 112 | 1 | 4 | 13 | 18 |
| 21/2009 | May 21-May 27 | | | 8.97 | 9.25 | 15.5 | 16.4 | 14 | 2,376 | 1 | 2,377 | 0 | 0 | 2,377 | 0 | 60 | 0 | 78 | 138 | 5 | 11 | 14 | 30 |
| 22/2009 | May 28-Jun 03 | | | 8.93 | 9.31 | 10.4 | 16.6 | 16 | 7,877 | 7 | 7,884 | 0 | 0 | 7,884 | 1 | 145 | 0 | 89 | 235 | 13 | 31 | 25 | 69 |
| 23/2009 | Jun 04-Jun 10 | | | 8.36 | 8.85 | 16.5 | 18.0 | 16 | 10,262 | 252 | 10,514 | 0 | 0 | 10,514 | 7 | 123 | 0 | 111 | 241 | 8 | 20 | 6 | 34 |
| 24/2009 | Jun 11-Jun 17 | | | 7.62 | 8.83 | 17.5 | 19.1 | 20 | 14,463 | 880 | 15,343 | 0 | 0 | 15,343 | 13 | 53 | 0 | 68 | 134 | 2 | 10 | 13 | 25 |
| 25/2009 | Jun 18-Jun 24 | | | 8.34 | 11.13 | 18.7 | 23.6 | 20 | 22,566 | 2,199 | 24,766 | 0 | 0 | 24,766 | 26 | 9 | 0 | 20 | 55 | 2 | 3 | 0 | 5 |
| 26/2009 | Jun 25-Jul 01 | | | 8.37 | 11.97 | 20.8 | 20.9 | 21 | 42,317 | 3,479 | 45,796 | 0 | 0 | 45,796 | 50 | 35 | 0 | 12 | 97 | 4 | 2 | 1 | 7 |
| 27/2009 | Jul 02-Jul 08 | | | | | | | 15 | 16,892 | 1,120 | 18,012 | 1 | 0 | 18,013 | 45 | 8 | 0 | 4 | 57 | 3 | 2 | 0 | 5 |
| 28/2009 | Jul 09-Jul 15 | | | | | | | 3 | 1,892 | 103 | 1,995 | 1 | 0 | 1,996 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Totals | | | | | | | | 290 | 130,987 | 8,043 | 139,031 | 178 | 13 | 139,223 | 175 | 4,018 | 0 | 4,209 | 8,403 | 55 | 202 | 226 | 483 |

Actual catch reported (not expanded for non-sample days).

*Flows reported by USGS, may be subject to revision **Water temperature recorded with Min-Max thermometer. Dissolved oxygen recorded in river at time of daily trap check
YOY=Young of Year (less than 1 yr); Y+=greater than 1 yr; Ad-Clip=Adipose Fin Clipped; M-Clip= Maxillary Clip

Summarized on: 7/17/2009