

Willow Creek Downstream Migrant Trap Site
2008 In-Season Trapping Update –July 16, 2008

Synopsis: The 2008 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 13, 2008 with the installation of one trap. A second trap was installed March 15, 2008, and a third trap was installed March 27, 2008. See attached catch summary for details of this narrative.

This summary includes data from March 13th, 2008 through July 9th, 2008 and is presented as raw catch. No expansions have been calculated at this time. Data entry is not complete for Julian Week 28, July 9th to July 15th. Heavy debris load from floating algae have occasionally resulted in null sets, causing less than 21 trap days (3 traps x 7 days) in some weeks. In addition, the traps were not fished a couple of days due to heavy smoke and unhealthy conditions for trap crews.

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 a few age 1+ natural Chinook salmon. Weekly mean Fulton's K values of YOY Chinook salmon began the season lower than 1.0 with an increase in condition to greater than 1.0 in Julian Week 16 which has stayed relatively stable through Julian Week 28. Efficiency calibrations at flow benches were conducted May 8th (~10,500 cfs measured at Hoopa Gauge; initial efficiency estimate of 0.93 %), May 16th (~10,000 cfs; initial efficiency estimate of 1.02 %), May 29th (~5,800 cfs; initial efficiency estimate of 3.7%), and June 5th (~2,500 cfs; initial efficiency estimate of 3.8%). Natural Chinook salmon catches show bi-modal peaks (mid-April, and mid-June) in raw catch, both of which are coincident with a dropping of flow; this is consistent with past year's catches.

Raw daily catches of steelhead (*Oncorhynchus mykiss*) smolts (age 1+) have been dropping off since the beginning of June. Steelhead smolts captured JW 11-23 had weekly mean Fulton's K values slightly higher than 1.0, with a steady drop over time (indicating that the smolting process is underway). Steelhead YOY numbers have increased in the catch, and have yet to show signs of a peak.

Raw daily catches of coho salmon (*Oncorhynchus kisutch*) are low compared to the past 5 years, especially for natural smolts. Weekly mean Fulton's K value of natural coho salmon smolts were higher than 1.0 at the beginning of the season and have steadily dropped over time, indicating that the smolting process is underway. A peak in hatchery coho smolt catch occurred coincident with the high dam releases in early to mid May; this is consistent with past year's catches. The peak in natural coho smolt catch occurred during Julian week 24 during the down ramp of flow; this is not consistent with past year's catches.

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: 3/13/2008

DayMax: 7/9/2008

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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
11/2008	Mar 12-Mar 18			11.9	12.86	7.15	9.06	10	19	0	19	0	0	19	0	5	1	0	6	1	4	0	5
12/2008	Mar 19-Mar 25			11.52	12.18	7.7	9.71	14	27	0	27	2	0	29	0	16	0	3	19	0	3	19	22
13/2008	Mar 26-Apr 01			11.52	12.27	7.05	9.13	18	130	0	130	1	0	131	0	40	11	229	280	20	19	13	52
14/2008	Apr 02-Apr 08			11.6	12.9	8.19	9.65	21	523	0	523	2	0	525	0	162	10	166	338	6	9	4	19
15/2008	Apr 09-Apr 15			11.62	13.1	9.1	11.6	15	595	0	595	0	0	595	0	184	12	112	308	5	5	3	13
16/2008	Apr 16-Apr 22			11.05	13.2	7.65	11.5	21	1,065	1	1,066	0	0	1,066	0	240	21	321	582	6	7	0	13
17/2008	Apr 23-Apr 29			11.06	12.16	8.06	11.7	15	548	0	548	0	0	548	0	32	25	398	455	5	4	1	10
18/2008	Apr 30-May 06			11.02	16.2	10.9	13	11	232	0	232	0	0	232	3	17	13	133	166	2	1	15	18
19/2008	May 07-May 13			10.89	10.91	10.6	10.9	14	230	0	230	0	0	230	6	18	19	131	174	12	1	105	118
20/2008	May 14-May 20			10.86	15.77	11.9	13.6	20	530	6	536	1	0	537	19	21	27	307	374	10	18	118	146
21/2008	May 21-May 27			10.34	10.6	11.4	12.7	12	1,264	0	1,264	0	0	1,264	7	14	7	42	71	18	7	37	62
22/2008	May 28-Jun 03			9.08	10.54	11.7	13.2	21	4,437	0	4,437	0	0	4,437	31	69	16	52	168	27	32	63	122
23/2008	Jun 04-Jun 10			9.36	9.99	13	15.9	21	6,094	4	6,098	1	0	6,099	138	168	24	70	400	42	19	90	151
24/2008	Jun 11-Jun 17			9.24	10.74	14	15.6	21	10,168	92	10,260	0	1	10,261	365	114	19	49	547	40	59	40	139
25/2008	Jun 18-Jun 24			9.9	10.85	13.7	15.2	21	12,690	746	13,436	0	0	13,436	538	59	5	15	617	43	27	16	86
26/2008	Jun 25-Jul 01			7.12	10.66	13.8	15.4	21	10,684	338	11,022	0	0	11,022	649	10	1	7	667	27	8	6	41
27/2008	Jul 02-Jul 08			7.86	9.96	14.7	16.1	18	9,122	426	9,548	0	0	9,548	809	6	3	2	820	18	0	1	19
28/2008	Jul 09-Jul 15			7.54	7.54	16.1	16.1	3	1,347	54	1,401	0	0	1,401	94	0	1	0	95	4	0	1	5
Totals								297	59,705	1,667	61,372	7	1	61,380	2,659	1,175	215	2,037	6,087	286	223	532	1,041

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: 7/16/2008