

## Field Update:

RMT field crews continued fall monitoring activities to include: Vaki Riverwatcher monitoring, biometric carcass sampling for Chinook salmon, Cormack-Jolly-Seber mark-recapture escapement surveys downstream of Daguerre Point Dam, and redd surveys in the EDR (for the US Army Corps of Engineers).

The Vaki Riverwatcher table has not been updated since 10/27/2014. Data have been downloaded and the equipment is operating properly; however, our Vaki technician has been assisting field crews to collect biometric/mark-recapture and redd survey data, leaving very little time for passage identifications. Our technician did identify an additional 2,335 Chinook salmon that were observed by the Vaki Riverwatchers since the last update, but these data are not reflected in this week's table. This brings the current net passage total to 7,561 Chinook salmon.

Biometric sampling of carcasses upstream of Daguerre Point Dam (DPD) has continued. Flows upstream of DPD during November have allowed continued use of motorized vessels in this reach. See below for updated summary tables.

Mark-recapture surveys for spawned Chinook salmon carcasses downstream of DPD have also continued. Spawning in this area has increased over the last few weeks, making for some very long days in the field. A preliminary Cormack-Jolly-Seber estimate of 1,873 Chinook salmon has been calculated from mark-recapture data collected. Additional recaptures of marked carcasses in recent weeks have improved the confidence in this estimate.

Redd monitoring in the Englebright Dam Reach has continued weekly for the US Army Corps of Engineers. A total of 103 redds have been observed in this reach from September 18 – November 13, 2014.

Field crews were also able to collect approximately 150 water surface elevation measurements from the Narrows Pool downstream to the Feather River confluence to aid in calibration of the SRH-2D flow model using the new topographic LIDAR/multibeam sonar maps.

# Vaki Riverwatcher

(03/01/13-10/27/14)

		M	A	M	J	J	A	S	O	N	D	J	F	subtotal	total YTD	M	A	M	J	J	A	S	O	N	D	J	F	subtotal	total YTD
O.tshawytscha	N	11	3	269	833	801	808	1038	3164	1286	153	30	39	8435	9868	2	33	74	353	164	962	765	1803					4156	4456
	S	2	4	46	319	198	103	88	546	111	8	0	8	1433		1	1	2	8	23	109	21	135					300	
Ad-clip	N	0	0	9	43	36	38	166	482	246	36	1	0	1057	1229	1	11	18	38	15	86	98	403					670	713
	S	1	1	3	12	12	9	12	102	19	1	0	0	172		0	0	1	0	3	8	3	28					43	
Ad-undet.	N	0	0	0	15	7	6	7	103	64	6	1	2	211	231	1	1	0	4	0	8	6	37					57	57
	S	0	0	0	3	1	0	1	10	0	0	0	5	20		0	0	0	0	0	0	0	0					0	
<b>Total</b>	N	11	3	278	891	844	852	1211	3749	1596	195	32	41	9703	11328	4	45	92	395	179	1056	869	2243					4883	5226
	S	3	5	49	334	211	112	101	658	130	9	0	13	1625		1	1	3	8	26	117	24	163					343	
O.mykiss	N	85	33	26	19	21	11	32	36	10	2	33	25	333	444	30	27	30	33	22	19	11	55					227	307
	S	19	13	5	7	2	4	9	20	16	3	3	10	111		13	2	10	17	14	6	10	8					80	
Ad-clip	N	8	11	0	0	0	0	3	5	12	12	68	31	150	247	18	2	0	0	1	2	1	3					27	35
	S	16	4	3	3	3	9	15	8	19	7	4	6	97		3	0	0	0	2	0	0	3					8	
Ad-undet.	N	5	2	0	2	4	0	0	0	4	1	13	44	75	94	19	2	1	1	1	0	1	2					27	42
	S	1	1	0	0	0	1	0	0	2	0	0	14	19		11	1	1	1	0	0	0	1					15	
Unk. salmonid	N	0	0	1	0	0	4	3	2	4	1	1	0	16	24	0	0	2	1	0	0	0	3					6	6
	S	1	0	0	0	0	2	0	1	0	1	0	3	8		0	0	0	0	0	0	0	0					0	
O.gorbuscha	N	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0					0	0
	S	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0					0	
O. nerka	N	0	0	0	0	4	7	1	0	0	0	0	0	12	13	0	0	0	0	0	0	0	1					1	1
	S	0	0	0	0	0	1	0	0	0	0	0	0	1		0	0	0	0	0	0	0	0					0	
O. keta	N	0	0	0	0	0	1	0	0	0	1	0	0	2	2	0	0	0	0	0	0	0	0					0	0
	S	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0					0	
Brown Trout	N	1	0	0	0	0	0	1	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0					0	1
	S	0	0	0	0	0	0	0	1	0	0	0	0	1		0	0	0	0	1	0	0	0					1	
S. pikeminnow	N	44	97	27	12	3	3	0	1	0	0	0	2	189	210	69	65	43	11	5	8	1	3					205	209
	S	9	6	1	1	0	0	0	0	0	0	0	4	21		2	0	1	0	0	0	0	1					4	
S. sucker	N	201	179	26	33	25	16	1	0	1	0	0	21	503	576	124	122	41	12	10	3	1	2					315	388
	S	46	18	5	0	3	0	0	0	0	0	0	1	73		72	1	-1	0	0	1	0	0					73	
Hardhead	N	1	9	7	4	0	1	1	0	0	0	0	0	23	26	0	8	1	0	0	0	0	0					9	9
	S	1	1	0	0	1	0	0	0	0	0	0	0	3		0	0	0	0	0	0	0	0					0	
A.shad	N	0	0	0	0	11	1	0	0	0	0	0	0	12	12	0	0	0	0	0	1	0	0					1	1
	S	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0					0	
Unident. (TL<35cm)	N	-12	0	18	23	1	3	0	6	1	2	0	7	49	89	42	0	2	0	-1	-1	2	-6					38	103
	S	5	0	-1	3	1	8	2	0	1	0	0	21	40		67	1	-1	1	-3	0	0	0					65	
Unident. (TL≥35cm)	N	0	0	0	0	0	4	0	2	1	0	0	1	8	10	0	-1	0	0	0	0	0	1					0	1
	S	0	0	0	0	0	1	0	0	1	0	0	0	2		0	1	0	0	0	0	0	0					1	
Mean % Op.	N	100	100	100	100	100	100	100	100	100	100	100	76	98	99	83	100	99	100	100	100	82	100					96	98
	S	100	100	100	100	100	100	100	100	100	100	100	100	100		99	100	99	100	100	100	100	100					100	

# Carcass Survey

## Biological Sampling (Narrows Pool to DPD)

Survey Week	Fresh Carcasses Observed	Ad-clips Observed	Female Carcasses Observed	Unspawned Females Observed	Otoliths Collected
09/15/2014	2	0	2	0	2
09/22/2014	0	0	0	0	0
09/29/2014	11	0	5	0	4
10/06/2014	29	1	19	3	7
10/13/2014	91	6	67	2	25
10/20/2014	86	7	71	4	22
10/27/2014	83	8	58	4	19
11/03/2014	58	9	41	1	13
11/10/2014	116	19	77	3	27
11/17/2014	21	1	17	0	6
11/24/2014	28	4	17	0	7
Totals	525	55	374	17	132

## Modified CJS Mark-Recapture (DPD to Simpson Lane Bridge)

Survey Week	Marked Carcass Total	Marked Carcass Recoveries	Dead on Capture	Female Carcass Total	Unspawned Total	Otoliths Collected
09/15/2014	0	0	0	0	0	0
09/22/2014	0	0	0	0	0	0
09/29/2014	1	0	1	1	1	1
10/06/2014	2	0	1	1	1	2
10/13/2014	8	0	1	5	2	2
10/20/2014	13	2	7	2	1	5
10/27/2014	56	3	11	21	9	12
11/03/2014	121	13	30	55	5	18
11/10/2014	258	33	106	153	11	28
11/17/2014	157	90	106	94	3	14
11/24/2014	99	120	93	61	3	15
Totals	715	261	356	393	36	97

**CJS Estimate:** 1,873

**CI @ 95%:** 170.06