

Vaki Riverwatcher

2009-2011 (03/01/09 – 12/12/10)

		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	0	10	47	269	133	441	1092	881	246	108	38	6	3271	3407	6	8	53	856	77	93	208	951	143	72			2467	3525
	S	0	0	5	3	0	24	16	78	3	1	6	0	136		2	0	0	34	117	8	143	725	29	0			1058	
Ad-clip	N	1	0	36	136	33	85	260	112	32	13	6	3	717	760	7	1	150	1383	58	49	180	142	43	23			2036	2465
	S	0	0	0	6	1	6	5	17	3	1	4	0	43		0	0	0	86	109	0	99	132	3	0			429	
Ad-undet.	N	0	0	7	22	5	20	27	-5	2	3	2	0	83	87	0	0	3	53	11	4	13	29	0	1			114	159
	S	0	0	0	0	0	0	-2	3	0	0	3	0	4		0	0	0	8	6	0	12	19	0	0			45	
Total	N	1	10	90	427	171	546	1379	988	280	124	46	9	4071	4254	13	9	206	2292	146	146	401	1122	186	96			4617	6149
	S	0	0	5	9	1	30	19	98	6	2	13	0	183		2	0	0	128	232	8	254	876	32	0			1532	
O.mykiss	N	17	1	8	6	3	8	4	13	3	6	2	11	82	199	22	15	7	7	15	6	10	26	2	9			119	139
	S	4	0	0	10	33	33	10	23	1	1	2	0	117		0	0	0	0	0	0	3	13	4	0			20	
Ad-clip	N											6	6	6	4	40	4	2	2	2	10	17	17	34			132	145	
	S											0	0		0	0	0	0	0	0	1	12	0	0			13		
Ad-undet.	N											1	1	1	1	1	1	3	2	0	3	6	3	32			52	63	
	S											0	0		4	0	0	1	0	0	0	3	3	0			11		
Unk. salmonid	N	0	0	1	4	0	8	4	2	0	0	3	0	22	24	0	0	0	0	0	-1	0	2	29	3			33	38
	S	1	0	0	0	0	0	0	0	0	0	0	1	2		1	0	1	0	2	0	0	1	0	0			5	
S. pikeminnow	N	38	39	283	21	6	1	1	1	4	0	0	0	394	462	26	116	85	43	10	15	11	1	0	0			307	339
	S	7	14	28	12	1	6	0	-1	0	0	1	0	68		0	6	4	16	4	0	0	1	1	0			32	
S. sucker	N	60	19	206	11	29	20	4	0	0	1	2	13	365	799	187	212	48	45	43	16	29	14	1	2			597	985
	S	160	71	186	2	2	5	1	2	0	0	0	5	434		131	202	15	16	6	0	9	9	0	0			388	
Hardhead	N	0	3	8	2	1	2	0	0	0	0	0	0	16	17	0	7	18	10	2	3	0	1	0	0			41	41
	S	0	0	0	0	1	0	0	0	0	0	0	0	1		0	0	0	0	0	0	0	0	0	0			0	
Unident. (TL<35cm)	N	65	-3	452	30	11	8	12	1	-3	1	3	0	577	814	-20	-14	-3	-7	3	-2	5	-3	8	4			-29	133
	S	64	9	128	6	3	-1	10	-3	5	2	8	6	237		55	57	0	6	0	0	21	14	9	0			162	
Unident. (TL≥35cm)	N	0	0	2	1	0	0	0	3	0	0	0	0	6	69	0	0	0	4	0	0	-1	1	0	0			4	6
	S	1	0	60	0	0	0	0	4	-2	0	0	0	63		0	0	0	0	0	0	2	0	0	0			2	
Mean % Op.	N	73	95	67	100	100	100	74	80	87	50	11	71	76	80	100	99	100	100	100	100	100	100	100	100			100	95
	S	93	100	77	100	100	100	100	100	100	75	30	45	85		100	83	100	100	100	13	99	100	100	100			89	

Operational Status Comments:

100% Operation. The current river conditions have created moderate to poor visibility for the camera in some instances, causing some difficulty with identification for *O.mykiss*. Some difficulty has also been encountered due to the speed in which *O.mykiss* are swimming through the Vaki, speculatively in response to the stronger flows (duration of footage is less than a second). Adjustments to camera timing have been made.

Redd Survey 2010-2011
(09/13/10 – 12/13/10)

Week	Englebright – Hwy. 20	Hwy. 20 - DPD	DPD – Simpson	Total
9/13/10	8	4	0	12
9/20/10	53	134	9	196
9/27/10	275	156	18	449
10/04/10	333	68	28	429
10/11/10	240	141	41	422
10/18/10	149	138	86	373
10/25/10	9	No Survey	No Survey	9
11/01/10	No Survey	No Survey	No Survey	N/A
11/08/10	157	240	227	624
11/15/10	76	112	86	274
11/22/10	49	44	29	122
11/29/10	23	22	42	87
12/06/10	0	No Survey	No Survey	0
12/13/10	0	0	8	8
Total	1372	1059	574	3005

Escapement Survey 2010-2011
(09/13/10 – 12/13/10)

Week	Fresh Carcasses	Decayed Chops	Total Females	Un-spawned Females
09/13/10	27	37	18	17
09/20/10	32	12	17	10
09/27/10	89	71	28	10
10/04/10	158	398	83	5
10/11/10	168	605	95	7
10/18/10	122	567	55	6
10/25/10	21	183	12	1
11/01/10	50	196	23	0
11/08/10	64	384	34	0
11/15/10	36	195	18	0
11/22/10	9	74	7	0
11/29/10	4	35	4	0
12/06/10	0	8	0	0
12/13/10	0	4	0	0
Total	780	2769	394	56

Escapement Survey (cont.)

2010-2011 (09/13/10 – 12/13/10)

SURVEY PERIOD	T(i)		RATIO	E(i)		R(i)		RECAPTURES OF FISH MARKED IN SURVEY PERIOD													
	NUMBER TAGGED	NUMBER CHOPPED		E(i) / R(i)	TOTAL EXAMINED	Sum of Rows RECOVERED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	11	50	0	61	0	PASTE FINAL SCHAEFER MATRIX HERE															
2*	11	33	106	106	1	1															
3	35	119	52.3333333	157	3																
4	57	489	69.25	554	8																
5	81	686	34.3478261	790	23																
6	78	594	22.6774194	703	31																
7	15	188	15.5	217	14																
8	33	205	27.4444444	247	9																
9	53	387	49.8888889	449	9																
10	24	202	46.2	231	5																
11	8	75	14.8333333	89	6																
12	3	35	20	40	2																
13	0	8	0	8	0																
14	0	4	0	4	0																
Totals	409	3075		3656	111																
					111	C(i) Total															
					C(i) RECOVERED Sum of Columns	1	4	9	25	34	13	7	8	6	3	1	0	0	0		
					T(i) / C(i) Ratio	11.00	2.75	3.89	2.28	2.38	6.00	2.14	4.13	8.83	8.00	8.00	0.00	0.00	0.00		

SCHAEFER ESTIMATE CALCULATIONS:	
Total Population from Matrix =	13555
# Tagged from period 2 to last =	-398
SCHAEFER ESTIMATE IS:	13,157

Survey Period	Matrix of Population Estimates													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	1166	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	432	0	0	0	0	0	0	0	0	0	0	0	0
4	0	190	1885	0	0	0	0	0	0	0	0	0	0	0
5	0	0	134	1723	0	0	0	0	0	0	0	0	0	0
6	0	0	88	155	1459	0	0	0	0	0	0	0	0	0
7	0	0	0	0	185	837	0	0	0	0	0	0	0	0
8	0	0	0	0	131	329	294	0	0	0	0	0	0	0
9	0	0	0	0	0	299	107	1441	0	0	0	0	0	0
10	0	0	0	0	0	0	99	0	1632	0	0	0	0	0
11	0	0	0	0	0	89	0	61	262	237	0	0	0	0
12	0	0	0	0	0	0	0	0	0	160	160	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	1166	622	2107	1878	1774	1555	500	1502	1894	397	160	0	0	0