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**Ref # 12605**

**STATE OF WASHINGTON**  
**DEPARTMENT OF FISH AND WILDLIFE**  
**FISH PROGRAM – REGION 5**  
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To: Robert Woodard

From: Michelle Groesbeck

Subject: AGE COMPOSITION OF NATURALLY SPAWNING FALL AND SPRING CHINOOK, AND FALL CHUM IN WASHINGTON COLUMBIA RIVER TRIBUTARIES DOWNSTREAM FROM MCNARY DAM, 2011. Includes updated tables with previous years corrected data. The purpose of these tables is to incorporate data that has not been summarized yet into StreamNet to provide information on fisheries in a timely manner and a known location.

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Attach: Tables 1-5.

cc: Ken Keller  
Todd Hillson  
Bryant Spellman

**Table 1.** Age Composition for Fall Chinook by Tributary, Minimum, Maximum and Mean Fork Length and Standard Deviation by Age and Sex, 2011.

**Grays River**

		2's	3's	4's	5's	6's	Total
<b>Return Year</b>	2011	82	492	197	9	0	780
Male		82	123	81	9	0	295
Female		0	369	116	0	0	485

Combined with WF Grays to get Age Composition by males and females.

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	2	14	9	1		42	13			
<b>Min FL</b>	50	75	78	96		58	66			
<b>Mean FL</b>	52	82	88	96		73	80			
<b>Max FL</b>	53	89	94	96		84	89			
<b>Std. Dev.</b>	2.12	3.59	6.67	---		6.12	6.78			

**Skamokawa Creek**

		2's	3's	4's	5's	6's	Total
<b>Return Year</b>	2011	25	406	66	8	0	505
Male		25	245	16	0	0	286
Female		0	161	50	8	0	219

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	6	61	4			40	13	2		
<b>Min FL</b>	31	68	95			68	79	84		
<b>Mean FL</b>	55	84	97			79	91	89		
<b>Max FL</b>	68	100	98			94	105	93		
<b>Std. Dev.</b>	15.04	6.71	1.50			5.95	7.15	6.36		

**Elochoman River**

		2's	3's	4's	5's	6's	Total
<b>Return Year</b>	2011	29	164	529	0	0	722
Male		29	75	166	0	0	270
Female		0	89	363	0	0	452

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	2	15	33			18	72			
<b>Min FL</b>	60	69	74			64	73			
<b>Mean FL</b>	61	83	91			78	88			
<b>Max FL</b>	61	91	105			90	102			
<b>Std. Dev.</b>	0.71	7.42	8.06			7.17	5.71			

### Abernathy Creek

		2's	3's	4's	5's	6's		Total
Return Year	2011	6	81	128	0	0		215
Male		6	42	38	0	0		86
Female		0	39	90	0	0		129

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	2	15	14			14	33			
Min FL	63	72	80			75	76			
Mean FL	65	83	89			82	88			
Max FL	67	99	97			94	96			
Std. Dev.	2.83	8.75	5.72			4.62	4.99			

### Mill Creek

		2's	3's	4's	5's	6's		Total
Return Year	2011	14	134	1047	16	0		1211
Male		12	73	337	3	0		425
Female		2	61	710	13	0		786

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	8	45	212	2		1	38	447	8	
Min FL	54	69	77	99		57	68	39	84	
Mean FL	61	82	93	105		57	81	89	90	
Max FL	71	93	111	110		57	92	107	97	
Std. Dev.	6.09	6.07	6.74	7.78		----	6.40	6.07	4.03	

### Germany Creek

		2's	3's	4's	5's	6's		Total
Return Year	2011	15	190	304	2	0		511
Male		15	119	117	0	0		251
Female		0	71	187	2	0		260

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	5	52	50			31	80	1		
Min FL	54	65	75			66	76	91		
Mean FL	61	80	88			78	86	91		
Max FL	68	91	104			90	99	91		
Std. Dev.	6.30	5.69	7.29			5.86	5.32	---		

### Cowlitz River

		2's	3's	4's	5's	6's		Total
Return Year	2011	115	676	2805	204	0		3800
Male		110	483	874	83	0		1550
Female		5	193	1931	121	0		2250

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	21	55	101	11		1	22	223	16	
Min FL	39	52	66	44		59	66	66	76	
Mean FL	47	73	88	91		59	74	82	86	
Max FL	57	91	104	104		59	83	94	97	
Std. Dev.	5.20	7.79	7.55	16.76		---	4.57	4.85	5.32	

### Coweeman River

		2's	3's	4's	5's	6's		Total
Return Year	2011	27	188	579	36	5		835
Male		27	123	245	18	5		418
Female		0	65	334	18	0		417

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	5	17	44	3	1	9	60	3		
Min FL	41	66	71	78	95	63	71	92		
Mean FL	48	75	86	89	95	73	81	94		
Max FL	59	84	100	101	95	77	90	95		
Std. Dev.	7.44	5.52	7.31	11.53	---	4.43	4.45	1.53		

### South Fork Toutle River

		2's	3's	4's	5's	6's		Total
Return Year	2011	4	28	17	3	0		52
Male		4	24	5	1	0		34
Female		0	4	12	2	0		18

Used age 4's sampled numbers to proportion age 5's to male/female.

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	1	7	2			1	5			
Min FL	49	66	80			70	79			
Mean FL	49	75	82			70	83			
Max FL	49	86	83			70	88			
Std. Dev.	---	6.00	2.12			---	3.7			

### Green River

		2's	3's	4's	5's	6's		Total
Return Year	2011	24	174	1000	73	0		1271
Male		24	129	448	27	0		628
Female		0	45	552	46	0		643

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	5	29	94	6		10	116	10		
Min FL	43	61	70	76		67	67	82		
Mean FL	47	75	83	94		73	82	87		
Max FL	53	88	102	106		78	93	92		
Std. Dev.	4.04	5.99	6.25	10.48		3.16	5.39	3.76		

### Kalama River

		2's	3's	4's	5's	6's		Total
Return Year	2011	95	2799	3547	207	0		6648
Male		95	1940	1029	37	0		3101
Female		0	859	2518	170	0		3547

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	8	131	74	3		58	181	14		
Min FL	49	62	71	76		60	67	74		
Mean FL	58	75	88	92		74	83	86		
Max FL	65	91	109	108		86	99	97		
Std. Dev.	6.05	5.77	7.05	16.01		5.38	5.12	5.55		

### Lewis River

		2's	3's	4's	5's	6's	7's	Total
Return Year	2011	797	1135	6744	1405	18	0	10099
Male		797	943	2932	558	0	0	5230
Female		0	192	3812	847	18	0	4869

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	7	133	423	83		27	550	126	3	
Min FL	42	52	49	71		64	70	76	85	
Mean FL	51	71	87	99		74	82	88	88	
Max FL	65	106	108	113		84	96	101	93	
Std. Dev.	8.27	7.42	8.17	7.45		4.97	4.66	5.44	4.35	

### East Fork Lewis River

		2's	3's	4's	5's	6's		Total
Return Year	2011	17	149	520	22	0		708
Male		17	90	186	3	0		296
Female		0	59	334	19	0		412

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	6	32	66	1		21	119	7		
Min FL	38	61	79	92		61	72	82		
Mean FL	47	73	88	92		72	82	86		
Max FL	56	82	99	92		89	94	91		
Std. Dev.	6.34	5.37	4.98	----		6.72	4.04	3.51		

### Cedar Creek

		2's	3's	4's	5's	6's		Total
Return Year	2011	28	204	840	19	0		1091
Male		28	127	405	9	0		569
Female		0	77	435	10	0		522

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	3	20	68	1		12	73	1		
Min FL	55	63	63	80		67	72	95		
Mean FL	57	73	84	80		75	81	95		
Max FL	58	84	97	80		82	91	95		
Std. Dev.	1.73	5.05	6.59	---		4.13	4.43	----		

### Washougal River

		2's	3's	4's	5's	6's		Total
Return Year	2011	176	1492	2907	136	0		4711
Male		176	888	767	43	0		1874
Female		0	604	2140	93	0		2837

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	18	97	77	5		66	215	11		
Min FL	42	64	68	84		66	64	73		
Mean FL	52	75	86	98		74	83	87		
Max FL	61	94	101	107		87	96	100		
Std. Dev.	5.33	5.65	6.78	9.02		4.47	4.91	6.92		

**Lower Columbia Below Bonneville**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	39	246	1361	71	0		1717

No length frequency to determine age proportions between male & female.

**Hamilton Creek**

		2's	3's	4's	5's	6's		Total
<b>Year</b>	2011	3	36	156	0	0		195
Male		3	24	48	0	0		75
Female		0	12	108	0	0		120

Assumed males, no jacks sampled.

<b>Age</b>	<b>Males</b>					<b>Females</b>				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>		2	4				1	9		
<b>Min FL</b>		72	84				66	78		
<b>Mean FL</b>		74	90				66	81		
<b>Max FL</b>		76	94				66	86		
<b>Std. Dev.</b>		2.83	4.20				---	2.65		

**Wind River – Tule**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	Tule 2011	162	250	410	0	0		822
Male		162	98	194	0	0		454
Female		0	152	216	0	0		368

<b>Age</b>	<b>Males</b>					<b>Females</b>				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	10	53	9				82	10		
<b>Min FL</b>	60	75	85				68	85		
<b>Mean FL</b>	67	88	99				82	93		
<b>Max FL</b>	70	100	112				97	101		
<b>Std. Dev.</b>	3.20	6.41	8.33				5.43	4.40		

### Wind River – Brights

		2's	3's	4's	5's	6's		Total
Return Year	Brights 2011	71	342	1083	71	14		1581
Male		71	228	313	14	14		640
Female		0	114	770	57	0		941

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	5	16	22	1	1	8	54	4		
Min FL	40	56	70	103	102	65	69	85		
Mean FL	46	69	91	103	102	77	81	88		
Max FL	54	80	102	103	102	89	90	91		
Std. Dev.	5.50	7.81	8.85	---	---	7.76	4.90	2.50		

### Little White Salmon – Tule

		2's	3's	4's	5's	6's		Total
Return Year	Tule 2011	114	1682	1257	0	0		3053
Male		114	884	394	0	0		1392
Female		0	798	863	0	0		1661

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	12	51	21			46	46			
Min FL	51	77	94			69	86			
Mean FL	62	88	101			82	96			
Max FL	67	99	113			91	105			
Std. Dev.	4.68	5.52	4.51			5.13	4.54			

### Little White Salmon – Brights

		2's	3's	4's	5's	6's		Total
Return Year	Brights 2011	235	172	1675	485	1		2568
Male		235	76	488	68	0		867
Female		0	96	1187	417	1		1701

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N	14	23	69	8		29	168	49	1	
Min FL	39	60	60	89		64	72	82	80	
Mean FL	46	70	85	94		75	84	91	80	
Max FL	56	81	103	107		85	97	100	80	
Std. Dev.	4.54	5.88	7.80	5.79		6.30	5.20	4.23	---	



**White Salmon River – Tule**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	Tule 2011	135	877	1956	0	0		2968
Male		135	573	843	0	0		1551
Female		0	304	1113	0	0		1417

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	4	17	25			9	33			
<b>Min FL</b>	45	74	84			79	81			
<b>Mean FL</b>	60	88	100			84	92			
<b>Max FL</b>	71	97	115			89	99			
<b>Std. Dev.</b>	10.79	6.47	6.63			4.07	3.50			

**White Salmon River – Brights**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	Brights 2011	2	2	2	2	0		8
Male		2	2	0	0	0		4
Female		0	0	2	2	0		4

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
<b>N</b>	1	1				1	1			
<b>Min FL</b>	38	71				82	99			
<b>Mean FL</b>	38	71				82	99			
<b>Max FL</b>	38	71				82	99			
<b>Std. Dev.</b>	---	---				---	---			

**Klickitat River – Tule**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	Tule 2011	20	126	282	0	0		428

No actual sampling to determine length frequency data to proportion to males & females.

### Klickitat River – Brights

		2's	3's	4's	5's	6's		Total
Return Year	Brights 2011	228	1213	3830	834	0		6105
Male		228	1011	1219	417	0		2875
Female		0	202	2611	417	0		3230

Assumed males, no jacks sampled.

Age	Males					Females				
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5
N		30	28	9			6	60	9	
Min FL		40	70	81			65	67	76	
Mean FL		67	83	92			73	82	84	
Max FL		92	106	101			79	94	91	
Std. Dev.		13.94	7.97	7.62			6.16	5.28	5.63	

### Hanford Reach

		2's	3's	4's	5's	6's	7's	Total
Return Year	2011	9519	11767	37894	15724	154	0	75058
Male		9519	8405	13684	4888	31	0	36527
Female		0	3362	24210	10836	123	0	38531

Age	Males					Females					
	1.1	1.2	1.3	1.4	1.5	1.1	1.2	1.3	1.4	1.5	1.6
N	61	185	546	106	1	74	966	235	4		
Min FL	41	54	66	74	103	59	66	77	86		
Mean FL	48	69	85	99	103	70	82	89	94		
Max FL	58	80	110	123	103	80	98	109	99		
Std. Dev.	4.35	5.08	8.52	7.13	---	4.48	5.10	4.90	5.74		

**Table 2.** Age Composition for Spring Chinook by Tributary, Minimum, Maximum and Mean Fork Length and Standard Deviation by Age and Sex, 2011.

**Cowlitz River**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	388	2646	3.472	591	0		7097

No scale samples taken - preliminary

**Kalama River**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	0	0	8	18	0		26

No scale samples taken

**Lewis River**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	0	75	17	28	0		120

No scale samples taken – Includes all Spch spawning in river and Spch returned downstream of Merwin.

**Wind River**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	0	3	52	3	0		59

No scale samples taken - preliminary

**Klickitat River**

		2's	3's	4's	5's	6's		Total
<b>Return Year</b>	2011	0	110	345	69	0		529

Used Lyle adult trap adult/jack proportion and adult age information and assumed all unmarked fish were wild/natural.

**Table 3.** Natural Spawn Age Composition and Mean Fork Length, Standard Deviation by Age and Sex for Fall Chum by Tributary, 2011.

**Grays River - Preliminary**

Population Estimate= 1,848

Peak Count= 775 on 11/02/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	94	1704	50	1848
Male		22	628	36	686
Female		72	1076	14	1162

Age	Male			Female		
	3	4	5	3	4	5
N	3	87	5	10	149	2
Mean	73	76	79	66	67	65
STD	6.56	4.41	3.90	3.09	3.91	4.24

**West Fork Grays River - Preliminary**

Population Estimate = 7,002

Peak Count= 3,276 on 11/14/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	219	6564	219	7002
Male		55	1695	91	1841
Female		164	4869	128	5161

Age	Male			Female		
	3	4	5	3	4	5
N	3	93	5	9	267	7
Mean	73	76	81	64	68	69
STD	1.15	5.89	3.96	2.86	4.69	6.25

**Crazy Johnson Creek - Preliminary**

Population Estimate = 2,374

Peak Count= 1,291 on 12/08/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	115	2197	62	2374
Male		52	1145	31	1228
Female		63	1052	31	1146

Age	Male			Female		
	3	4	5	3	4	5
N	5	110	3	6	101	3
Mean	73	74	78	66	67	68
STD	4.51	5.12	5.51	4.18	4.96	1.53

**Hamilton Creek – Preliminary**

Population Estimate= 517

Peak Count= 312 on 12/21/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	47	449	21	517
Male		26	266	15	307
Female		21	183	6	210

Age	Male			Female		
	3	4	5	3	4	5
N	17	174	10	14	120	4
Mean	67	75	79	62	67	69
STD	3.46	4.12	3.28	3.87	3.33	3.83

**Hamilton Spring Channel – Preliminary**

Population Estimate= 324

Peak Count= 506 on 11/23/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	20	287	17	324
Male		5	95	5	105
Female		15	192	12	219

	Male			Female		
<b>Age</b>	3	4	5	3	4	5
N	4	79	4	13	160	10
Mean	70	77	81	64	67	70
STD	3.30	4.00	2.36	3.33	3.21	3.23

**Hardy Creek - Preliminary**

Population Estimate = 173

Peak Count = 98 on 12/23/2011

		3's	4's	5's	Total
<b>Return Year</b>	2011	5	166	2	173
Male		2	95	2	99
Female		3	71	0	74

	Male			Female		
<b>Age</b>	3	4	5	3	4	5
N	1	55	1	2	41	--
Mean	67	75	77	65	65	
STD	---	3.36	---	2.12	2.04	

**Table 4.** Natural Spawn Chum Population Estimates and Age Composition revisions for 2002-2010.

**Grays River**

		<b>3's</b>	<b>4's</b>	<b>5's</b>	<b>Total</b>
<b>Return Year</b>	2004	323	4273	276	4872
Male		120	1975	192	2287
Female		203	2298	84	2585
<b>Return Year</b>	2005	439	733	228	1400
Male		207	351	145	703
Female		232	382	83	697
<b>Return Year</b>	2006	334	894	16	1244
Male		225	540	12	777
Female		109	354	4	467
<b>Return Year</b>	2007	105	889	170	1164
Male		46	431	111	588
Female		59	458	59	576
<b>Return Year</b>	2009	583	100	67	750
Male		383	67	50	500
Female		200	33	17	250
<b>Return Year</b>	2010	442	2968	57	3467
Male		185	1555	43	1783
Female		257	1413	14	1684

<b>2009</b>		<b>Male</b>			<b>Female</b>		
<b>Index Area</b>	<b>Age</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grays River	N	23	4	3	12	2	1
	Mean	73	78	80	67	73	71
	STD	4.35	4.5	2.89	3.05	1.41	--

### West Fork Grays River

		3's	4's	5's	Total	
<b>Return Year</b>	2004	409	8196	410	9015	
Male		144	3399	169	3712	
Female		265	4797	241	5303	
		3's	4's	5's	6's	Total
<b>Return Year</b>	2005	384	654	281	5	1324
Male		78	239	125	5	447
Female		306	415	156	0	877
<b>Return Year</b>	2006	221	980	31	1232	
Male		91	434	22	547	
Female		130	546	9	685	
<b>Return Year</b>	2007	312	1467	130	1909	
Male		65	559	65	689	
Female		247	908	65	1220	
<b>Return Year</b>	2010	273	1670	24	1967	
Male		87	594	12	693	
Female		186	1076	12	1274	

### Crazy Johnson Creek

		3's	4's	5's	Total
<b>Return Year</b>	2004	145	784	37	966
Male		94	523	22	639
Female		51	261	15	327
<b>Return Year</b>	2005	402	823	246	1471
Male		216	432	85	733
Female		186	391	161	738
<b>Return Year</b>	2006	810	2754	75	3639
Male		386	1438	45	1869
Female		424	1316	30	1770
<b>Return Year</b>	2007	110	590	59	759
Male		59	455	42	556
Female		51	135	17	203
<b>Return Year</b>	2009	669	294	18	981
Male		265	150	6	421
Female		404	144	12	560



### Hamilton Creek

		3's	4's	5's	Total
<b>Return Year</b>	2003	28	406	66	500
Male		19	170	47	236
Female		9	236	19	264
<b>Return Year</b>	2004	88	92	42	222
Male		54	43	28	125
Female		34	49	14	97
<b>Return Year</b>	2005	32	136	6	174
Male		10	54	2	66
Female		22	82	4	108
<b>Return Year</b>	2006	9	234	3	246
Male		6	150	3	159
Female		3	84	0	87
<b>Return Year</b>	2007	12	45	22	79
Male		6	20	20	46
Female		6	25	2	33
<b>Return Year</b>	2008	36	76	2	114
Male		28	39	0	67
Female		8	37	2	47

### Hamilton Spring Channel

		3's	4's	5's	Total
<b>Return Year</b>	2003	16	314	33	363
Male		3	150	20	173
Female		13	164	13	190
<b>Return Year</b>	2004	130	145	71	346
Male		123	87	40	250
Female		7	58	31	96
<b>Return Year</b>	2005	19	63	2	84
Male		11	38	0	49
Female		8	25	2	35
<b>Return Year</b>	2006	24	210	2	236
Male		11	107	1	119
Female		13	103	1	117
<b>Return Year</b>	2007	8	26	10	44
Male		5	19	8	32
Female		3	7	2	12

### Hardy Creek

		3's	4's	5's	Total
<b>Return Year</b>	2003	7	368	17	392
Male		2	160	14	176
Female		5	208	3	216
<b>Return Year</b>	2004	35	7	7	49
Male		15	5	5	25
Female		20	2	2	24
<b>Return Year</b>	2005	17	53	2	73
Male		10	26	1	37
Female		7	27	1	35
<b>Return Year</b>	2006	9	94	1	104
Male		5	43	1	49
Female		4	51	0	55
<b>Return Year</b>	2007	5	8	1	14
Male		1	4	1	6
Female		4	4	0	8
<b>Return Year</b>	2008	1	2	0	3
Male		1	2	0	3
Female		0	0	0	0

2008		Male			Female		
Index Area	Age	3	4	5	3	4	5
Hardy Creek	N	1	2	--	--	--	--
	Mean	72	81				
	STD	---	3.54				

**Table 5.** Summary of fall Chinook salmon redd counts for the 2011 aerial surveys in the Hanford Reach, Columbia River.

Area	Description	10/16	10/23	10/30	11/5	11/13	11/21	Maximum Count
0	Islands 17-21 (Richland)	0	3	NA	2	NA	2	3
1	Islands 11-16	0	2	NA	568	NA	673	673
2	Islands 8-10	0	6	NA	796	NA	814	814
3	Island 7	0	0	NA	670	NA	630	670
4	Island 6 (Lower Half)	4	7	NA	1,105	NA	1,181	1,181
5	Island 4, 5 & Upper 6	0	7	NA	1,524	NA	1,221	1,524
6	Island 3	0	3	NA	520	NA	525	525
7	Island 2	0	13	NA	653	NA	576	653
8	Island 1	0	2	NA	202	NA	295	295
9	Coyote Rapids	0	1	NA	44	NA	22	44
10	Vernita Bar	5	23	NA	2,410	NA	2,463	2,463
11	Near Priest Rapids Dam	0	0	NA	0	NA	3	3
	Midway (China Bar)	0	0	NA	40	NA	67	67
	Total	9	67	NA	8,534	NA	8,472	8,915