

Subject: **Hidden Falls Chinook Data**

Source File: HFChinData.xls

Last Update: April 15, 2010
Data current through 2009 rel/ret

By: C Blair

Contents:

Table 1. Chinook Salmon Release and Survival Data for Hidden Falls Hatchery by Ancestral Stock

Table 2. Hidden Falls Chinook: Numbers of Smolt Released by Brood Year & Release Year

Table 3. Hidden Falls Chinook: Age Composition & Survival

Table 3a. Andrew Creek Stock Age Composition & Survival

Table 3b. Tahini River Stock Age Composition & Survival

Table 4. Hidden Falls Chinook: Numbers of Fish by Return Year

Table 5. Hidden Falls Chinook Return Timing

Table 5a. Common Property Catch Timing

Table 5b. Troll Catch Timing

Table 5c. Seine Catch Timing

Table 6. Hidden Falls Chinook Return Utilization

NSRAA has operated Hidden Falls since June 1988.

Table 1. Chinook Salmon Release and Survival Data for Hidden Falls Hatchery by Ancestral Stock

Brood Year	Stock ^{/1}	Smolt Released	Size (gm)	Release Date	% Marine Survival	Adult Return
1981	AC	80,460	12.3	5/17-22/83	0.12%	93
1982	AC	70,002	23.5	5/17&24/84	1.30%	910
1983	AC	50,211	18.8	05/21/85	0.75%	375
1984	CL	45,583	15.2	05/22/86	0.47%	215
1985	CL	46,137	15.7	05/22/87	0.61%	283
1986	CL	101,571	20.7	05/28/88	2.17%	2,204
1987	CL, HF	284,132	21.5	05/28/89	0.95%	2,698
1988	CL, HF	310,783	26.9	05/29/90	0.57%	1,276 ^{/5}
1989	HF	169,379	26.6	06/04/91	1.59%	2,697
1990	HF, CL, MH	1,554,021	19.6, 28.1	5/28-6/4/92	1.63%	25,403
1991	HF, MH	1,754,956	23.7, 34.0	6/2&5/93	2.89%	50,779
1992	HF	1,053,038	28.8, 37.2	5/28&29/94	2.69%	28,363
1993	HF	923,506	36.5	06/06/95	1.06%	9,808
1994	HF	888,538	27.5, 28.4	06/05/96	0.92%	8,217
1995	HF	944,457	38.3	05/27/97	4.52%	42,706
1996	HF	1,070,885	39.2	05/29/98	4.53%	48,496
1997	HF	1,104,403	35.1	06/01/99	1.38%	15,285
1998	HF	1,232,716	36.7	5/19&24/00	2.75%	33,905
1999	HF	1,214,625	24.3, 40.5	5/30&6/5/01	1.94%	23,582
2000	HF	1,145,835	42.7	06/03/02	1.74%	19,957
2001	HF	1,248,290	39.7	06/01/03	1.18%	14,671
2002	HF	922,407	25.5, 39.6	4/28, 6/2, 3, 4/04	0.43%	3,969
2003	HF	1,249,354	42.0	06/04/05	1.50%	18,781 ^{/2}
2004	HF	1,052,892	18.6, 35.8	4/16-21, 5/9/06 ^{/7}	0.44%	4,656 ^{/2}
2005	HF	604,149	46.3	5/11, 13/07	0.34%	2,043 ^{/2}
2006	HF	498,136	46.3	5/27, 6/5, 6/08		
2007	HF	908,118	40.3	06/04/09		
2002	HF	246,895	10.1	07/17/03 ^{/6}	0.00%	0 ^{/2}
2006	HF	252,825	8.9	08/03/07 ^{/6}	0.00%	0 ^{/2}
2007	HF	264,676	8.0	07/28/08 ^{/6}		
2008	HF	289,236	10.7	07/13/09 ^{/6}		
1983	TR	46,750	18.8	05/21/85	0.25%	115
1984	TR	46,518	16.7	05/22/86	0.15%	72
1985	TR	51,847	16.6	05/22/87	0.23%	118
1986	TR	57,460	17.2	05/28/88	0.53%	302
1987	TR	53,768	23.0	05/28/89	0.71%	382
1988	TR	38,660	38.0	05/21/90 ^{/3}	NA	NA
1989	TR	14,750	27.3	06/04/91	1.53%	226
1990	TR	30,223	15.3	05/20/92 ^{/4}	NA	NA
1991	TR	56,415	21.2	05/22/93 ^{/4}	NA	NA
1992	TR	38,789	ND	05/20/94 ^{/4}	NA	NA
1993	TR	0				
2007	PC(TR)	164,865	11.0	07/24/08 ^{/6,3}		
2008	PC(TR)	222,151	11.5	07/16/09 ^{/6,3}		

^{/1} AC= Andrew Creek, CL=Crystal Lake Hatchery, HF=Hidden Falls Hatchery
TR=Tahini River, MH=Medveje Hatchery, PC=Pullen Creek

^{/2} Incomplete Returns

^{/3} Lutak Bay Release Site

^{/4} Taiya Inlet Release Site

^{/5} Only 222,573 BY88 smolts were represented by a tag code. Marine survival shown reflects this.
No contribution has been estimated for the 88,210 smolts not represented by a code.

^{/6} Zero-check smolt release.

^{/7} Accidental early release (4/16-21/2006) 126,304 smolts

HIDDEN FALLS CHINOOK RELEASE HISTORY

Table 2. Hidden Falls Chinook
Numbers of Smolt Released by Brood Year & Release Year

Kasnyku Bay Age Smolt Releases

Brood Year	Andrew Creek	Tahini River	TOTAL	Release Year	Andrew Creek(0-ck)	Release Year (0-ck)
1981	80,460		80,460	1983		
1982	70,002		70,002	1984		
1983	50,211	46,750	96,961	1985		
1984	45,583	46,518	92,101	1986		
1985	46,137	51,847	97,984	1987		
1986	101,571	57,460	159,031	1988		
1987	284,132	53,768	337,900	1989		
1988	310,783		310,783	1990		
1989	169,379	14,750	184,129	1991		
1990	1,554,021		1,554,021	1992		
1991	1,754,956		1,754,956	1993		
1992	1,053,038		1,053,038	1994		
1993	923,506		923,506	1995		
1994	888,538		888,538	1996		
1995	944,457		944,457	1997		
1996	1,070,885		1,070,885	1998		
1997	1,104,403		1,104,403	1999		
1998	1,232,716		1,232,716	2000		
1999	1,214,625		1,214,625	2001		
2000	1,145,835		1,145,835	2002		
2001	1,248,290		1,248,290	2003		
2002	922,407		922,407	2004	246,895	2003
2003	1,249,354		1,249,354	2005		
2004	1,052,892		1,052,892	2006		
2005	604,149		604,149	2007		
2006	498,136		498,136	2008	252,825	2007
2007	908,118		908,118	2009	264,676	2008
2008				2010	289,236	2009

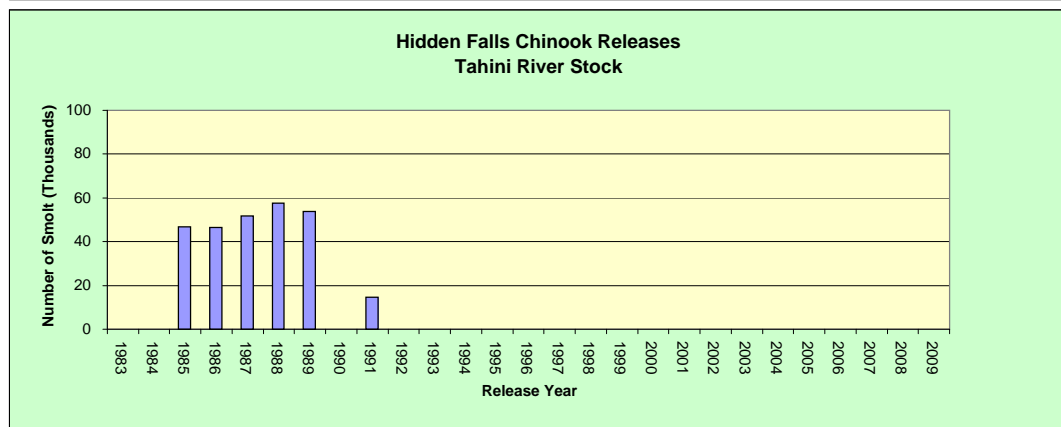
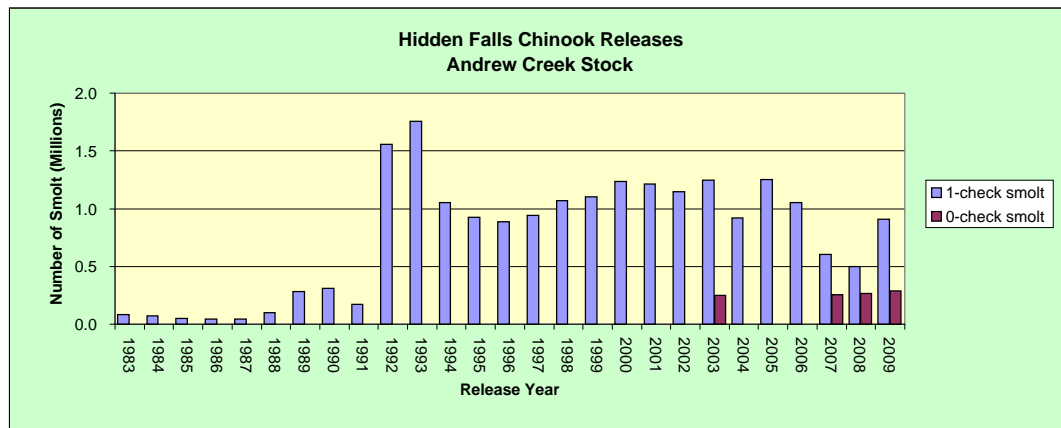


Table 3. Hidden Falls Chinook : Age Composition & Survival

Table 3a. Hidden Falls Chinook Returns: Andrew Creek Stock (Release Site = Kasnyku Bay)

Brood Year	Smolt Released	Total Age						Brood Year Adult Total	Brood Year Survival
		Jacks		Adults					
		2	3	4	5	6	7		
1981	80,460	nd	15	34	41	18	0	93	0.12%
1982	70,002	8	48	159	546	198	7	910	1.30%
1983	50,211	3	9	49	201	124	1	375	0.75%
1984	45,583	2	11	72	116	27	0	215	0.47%
1985	46,137	nd	6	68	131	82	2	283	0.61%
1986	101,571	nd	4	508	1,383	312	1	2,204	2.17%
1987	284,132	nd	43	324	1,679	695	0	2,698	0.95%
1988	222,573	nd	43	286	713	261	16	1,276	0.57%
1989	169,379	10	84	362	1,655	646	34	2,697	1.59%
1990	1,554,021	3	2,358	4,917	16,456	4,000	30	25,403	1.63%
1991	1,754,956	6	3,127	14,694	31,070	5,015	0	50,779	2.89%
1992	1,053,038	183	1,374	5,543	18,614	4,206	0	28,363	2.69%
1993	923,506	29	17	1,648	4,800	3,320	40	9,808	1.06%
1994	888,538	12	0	2,292	5,292	591	42	8,217	0.92%
1995	944,457	133	471	14,687	24,474	3,545	0	42,706	4.52%
1996	1,070,885	56	973	14,199	29,420	4,877	0	48,496	4.53%
1997	1,104,403	20	365	3,170	11,038	1,077	0	15,285	1.38%
1998	1,232,716	19	926	7,538	23,031	3,336	0	33,905	2.75%
1999	1,214,625	383	949	3,805	16,981	2,774	22	23,582	1.94%
2000	1,145,835	192	916	8,581	10,727	649	0	19,957	1.74%
2001	1,248,290	18	300	5,400	8,072	1,199	-	14,671	1.18%
2002	922,407	2	145	1,270	2,448	251	-	3,969	0.43%
2003	1,249,354	82	513	6,901	10,829	1,051	-	18,781	1.50%*
2004	1,052,892	0	293	1,195	3,461	-	-	4,656	0.44%*
2005	604,149	33	54	2,043	-	-	-	2,043	0.34%*
2006	498,136	9	93	-	-	-	-	-	-
2007	908,118	261	-	-	-	-	-	-	-

* Incomplete returns

0-check data are not included.

All Years Average thru BY03 1.64%
 Full Production Average (BY90-03) 2.08%
 5 year average (BY99-03) 1.36%
 10 year average (BY94-03) 2.09%

Table 3b. Hidden Falls Chinook Returns: Tahini River Stock (Release Site = Kasnyku Bay)

Brood Year	Smolt Released	Total Age						Brood Year Adult Total	Brood Year Survival
		Jacks		Adults					
		2	3	4	5	6	7		
1981									
1982									
1983	46,750	1	25	17	72	26	0	115	0.25%
1984	46,518	2	19	15	41	16	0	72	0.15%
1985	51,847	nd	3	31	71	16	0	118	0.23%
1986	57,460	nd	2	72	164	66	0	302	0.53%
1987	53,768	nd	264	141	203	38	0	382	0.71%
1988									
1989	14,750	11	1	39	140	47	0	226	1.53%
1990									

* Incomplete returns

Average BY83-87,89 0.57%

Table 4. Hidden Falls Chinook: Numbers of Fish by Return Year

Return Year	Return (No. of Fish) by Stock		
	Andrew Creek	Tahini River	Total
1985	34		34
1986	200		200
1987	613	17	630
1988	471	87	558
1989	315	98	413
1990	667	87	754
1991	1,789	88	1,877
1992	2,279	305	2,584
1993	1,771	269	2,040
1994	6,833	77	6,910
1995	31,812	140	31,952
1996	40,647	47	40,694
1997	25,536		25,536
1998	11,708		11,708
1999	23,102		23,102
2000	37,491		37,491
2001	31,775		31,775
2002	23,453		23,453
2003	27,913		27,913
2004	28,898		28,898
2005	18,901		18,901
2006	9,953		9,953
2007	10,548		10,548
2008	12,223		12,223
2009	6,554		6,554

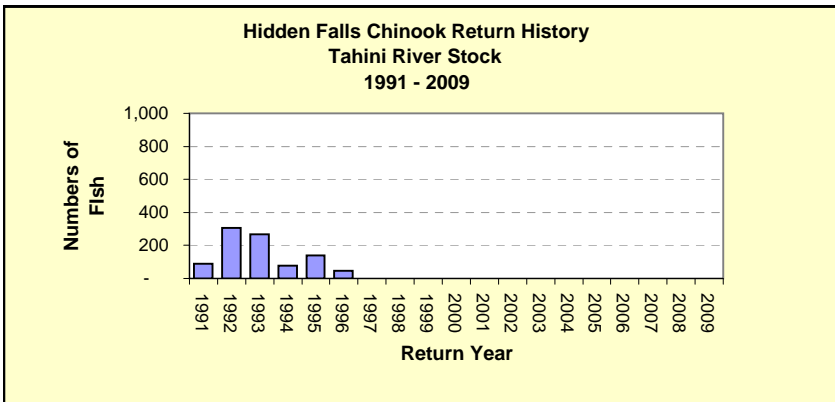
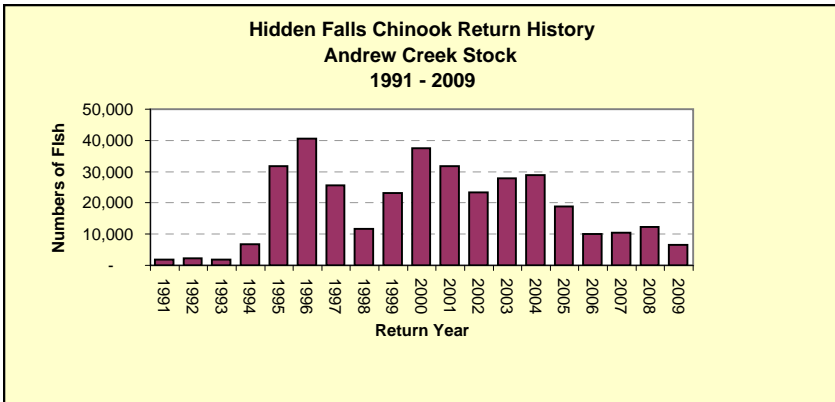


Table 5. Hidden Falls Chinook Return Timing
Andrew Creek Stock

Table 5a. COMMON PROPERTY CONTRIBUTION (Commercial + Sport)		Sum of CONTRIBUTION																				2000-09			
Avg. Week-End Date	STAT WEEK (CWT)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Grand Total	Average		
6-Apr	14		6								23	89	37	54	37							31	394	61	
13-Apr	15		5	2		29	181					104	31	32			59	116	151	23			616	67	
20-Apr	16		14	15		5				60		35	165	12		130	61	49	38		23		606	64	
27-Apr	17													14			52		44	36			146	37	
4-May	18												14			79	19		111				222	56	
11-May	19										34		25	31	120	31		17				40	297	44	
18-May	20									54	165	151	40	161	53	335	37	77	91				1,164	118	
25-May	21		48					302	419		66	164	47	59	81	176	299	212	135	77			2,084	139	
1-Jun	22		7	220	126	29		504	766	194	24	121	226	408	498	346	159	262	346	309	153	212	4,533	292	
8-Jun	23		7	220	126	29		1,217	2,637	1,423	279	280	417	1,228	640	238	573	181	372	278	313	148	10,606	439	
15-Jun	24			32		36	221	3,869	3,652	2,281	390	955	1,148	2,829	865	1,280	582	377	209	99	549	224	19,600	816	
22-Jun	25		11	77		11	97	1,397	5,326	3,463	382	1,041	1,928	2,053	110	322	567	285	148	138	344	86	17,877	598	
29-Jun	26		18	16	23	18	96	5,397	9,562	2,174	263	1,665	3,266	3,126	1,305	917	582	649	2,190	2,212	471	1,984	35,934	1,670	
6-Jul	27		59	160	81	26	531	3,845	3,366	1,754	1,696	2,461	9,072	887	1,091	2,605	349	440	795	1,194	2,002	521	32,936	1,896	
13-Jul	28		50	66	66	127	1,016	2,141	5,313	2,285	1,738	4,946	3,753	2,227	549	950	1,293	1,044	460	86	63	413	28,587	1,084	
20-Jul	29		53	26		415	739	2,104	579	1,104	718	1,042	2,775	2,006	1,537	1,163	2,113	427	51	153	266	218	17,488	1,071	
27-Jul	30		45	9	0		333	1,083	1,417	396	856	2,963	519	137	2,102	441	885	327	14	163			11,690	573	
3-Aug	31			5		166	429			502	316	205	78	270	137	975	317	45		261	330		4,037	291	
10-Aug	32		1	4			1,578			125	105	386	49	25	169	167	223	25	26				2,882	134	
17-Aug	33			3		66	60	118	229			99		326	118	45	21	13	197	75			1,251	111	
24-Aug	34		58	13			407	110	39	76	79	89	55	56	148	14	167	383	38	68	13		1,850	98	
31-Aug	35				13		121			61	76	370	61	33	121	60	85	57	65			133		1,256	77
Grand Total		301	711	417	726	3,823	23,972	33,188	15,632	7,243	16,642	24,453	15,475	9,949	8,977	9,270	5,510	5,424	5,341	4,626	4,377		196,057	9,733	

Peak Weeks are high-lighted.
Common Property Contributions (Commercial + Sport) are based on CWT sampling by ADF&G.
Contributions are from ADF&G TagLab CWT database. In many years terminal area contributions are adjusted by NSRAA to adjust for low sampling rates in terminal area fisheries.
The contributions shown are intended to show general return timing, but not final contribution estimates.

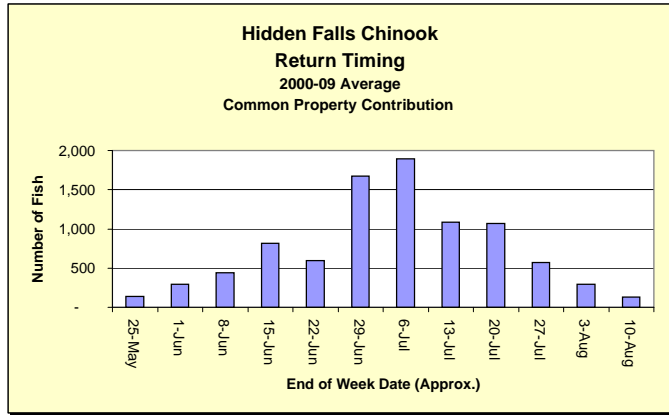


Table 5. Hidden Falls Chinook Return Timing
Andrew Creek Stock

Table 5b. TROLL		Sum of CONTRIBUTION																				2000-09	
Avg. Week-End Date	STAT WEEK (CWT)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Grand Total	Average
6-Apr	14		6								23	89	37	54	37			116			31	394	61
13-Apr	15		5	2		29	181					104	31	32			59		151	23		616	67
20-Apr	16		14	15		5				60		35	165	12		130		49	38		23	606	64
27-Apr	17													14			52		44	36		146	37
4-May	18												14			79	19		111			222	56
11-May	19										34		25	31				17			40	177	29
18-May	20									54	73	38	40	161	53	335	37	77	91			958	104
25-May	21							302	231		66	164	47	59	81	176	299	151	118	64		1,757	129
1-Jun	22						178	766	194	24	57	145	283	485	266	147	127	315	236	140	200	3,564	234
8-Jun	23	7	220	101	7		1,064	2,637	1,306	279	177	109	1,217	640	238	561	139	345	195	313	148	9,703	391
15-Jun	24		7			8	1,944	3,652	2,281	301	955	1,054	2,748	754	1,062	367	338	209	99	536	213	16,529	738
22-Jun	25	9	77	91	11	97	1,080	5,181	3,437	382	774	1,717	1,244	85	303	532	285	148	138	259	86	15,937	480
29-Jun	26	18	16	11	18	22		2,724	1,006	260	1,201	3,203	977	30	917	322	609	473	336	398	59	12,601	732
6-Jul	27	14	90	55	26	94	674	100	1,603	150	71	1,170	335	74	602	43		107	43	252	39	5,542	296
13-Jul	28	29	36	66	48	472	595	1,600	402	274	472	396	53	41	184	203	523	213	43	63	66	5,780	179
20-Jul	29	48													207	306						1,020	183
27-Jul	30	37												101	172					119		209	172
3-Aug	31														36							36	36
10-Aug	32						380								124							504	124
17-Aug	33											55	55					197	75			327	109
24-Aug	34	41						39	76			55	32	113		107	192	38	38	68		853	80
31-Aug	35			13							149	61	33	79							133	468	77
Grand Total		203	470	353	109	728	6,096	17,002	10,735	1,826	4,108	8,395	7,281	2,766	4,282	3,338	2,738	2,455	1,874	2,152	1,039	77,950	4,376

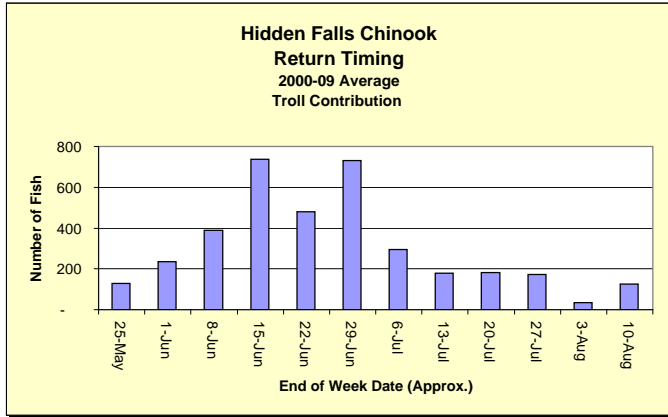


Table 5. Hidden Falls Chinook Return Timing
Andrew Creek Stock

Table 5c. SEINE		Sum of CONTRIBUTION																			2000-09			
Avg. Week- End Date	STAT WEEK (CWT)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Grand Total	Average	
27-Apr	17																							
4-May	18																							
11-May	19																							
18-May	20																							
25-May	21																							
1-Jun	22																							
8-Jun	23																							
15-Jun	24																							
22-Jun	25												767										767	767
29-Jun	26						4,722	6,787	1,169	2			1,912	1,275		260		1,634	1,876		1,925	21,562	1,480	
6-Jul	27		69	0		332	2,574	3,198		1,511	2,324	7,847	551	1,018	2,003	241	408	688	1,103	1,600	450	25,917	1,591	
13-Jul	28		27		79	254	1,441	3,713	1,834	1,416	4,449	3,357	2,145	437	766	746	404	196			265	21,530	1,040	
20-Jul	29		17		374	437	2,104	429	907	677	1,022	2,426	1,969	1,362	956	1,642	414			266	218	15,219	1,157	
27-Jul	30		9	0		180	960	1,417	396	815	2,799	460		2,058	220	771	327	14	149			10,574	571	
3-Aug	31		5			111	429			502	245	205	41	270	101	975	317			261	224	3,686	299	
10-Aug	32	1					1,198			125		330	49		45	96	87					1,931	121	
17-Aug	33				13			25							21							58	21	
24-Aug	34																					-	-	
31-Aug	35								61													61	-	
Grand Total		1	128	0	465	1,314	13,427	15,568	4,367	5,049	10,839	14,624	7,434	6,420	4,090	4,753	1,958	2,531	3,129	2,126		101,305	7,047	

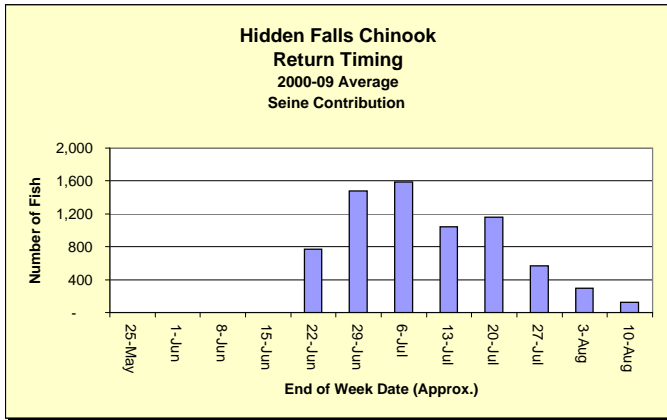


Table 6. Hidden Falls Chinook Return Utilization

CHINOOK YEAR	TROLL	DRIFT	PURSE	SPORT	TERM SPORT	CPH	COST RECOVERY	RACK	DONATION	STRAYS	OTHER	TOTAL	Comm %	CPH %	Troll %	Seine %	Gillnet %	Cost Recovery %
1985	14	4	50			69		?				69	100%	100%	21%	73%	6%	0%
1986	123	10	-	21		155		45				200	67%	77%	62%	0%	5%	0%
1987	291	26	10	174		501		129				630	52%	80%	46%	2%	4%	0%
1988	244	10	46	28		327		231				558	54%	59%	44%	8%	2%	0%
1989	145	9	15	49		218		195				413	41%	53%	35%	4%	2%	0%
1990	307	90	1	69		468		286				754	53%	62%	41%	0%	12%	0%
1991	774	34	150	127		1,084		793				1,877	51%	58%	41%	8%	2%	0%
1992	785	18	0	48		851		1,733				2,584	31%	33%	30%	0%	1%	0%
1993	185	77	465	105		833		1,207				2,040	36%	41%	9%	23%	4%	0%
1994	1,048	860	1,377	926		4,211		2,699				6,910	48%	61%	15%	20%	12%	0%
1995	6,339	1,177	13,456	3,271	50	24,294	2,239	8,937	-	63		35,533	59%	68%	18%	38%	3%	6%
1996	17,192	414	15,568	204	50	33,428	2,597	5,235	-	115		41,375	80%	81%	42%	38%	1%	6%
1997	10,840	226	4,367	305	50	15,787	5,091	4,658	-	-		25,536	60%	62%	42%	17%	1%	20%
1998	2,312	76	5,049	292	50	7,779	1,387	2,540	-	2		11,708	64%	66%	20%	43%	1%	12%
1999	4,467	96	10,839	1,655	50	17,106	1,948	4,048	-	-		23,102	67%	74%	19%	47%	0%	8%
2000	9,445	335	14,624	1,099	100	25,602	7,766	4,123	-	-		37,491	65%	68%	25%	39%	1%	21%
2001	6,661	309	7,472	452	50	14,944	13,335	3,368	-	128		31,775	45%	47%	21%	24%	1%	42%
2002	6,590	228	8,440	510	50	15,818	2,162	5,473	-	-		23,453	65%	67%	28%	36%	1%	9%
2003	6,037	15	4,647	601	50	11,350	10,153	5,409		1	1,000	27,913	38%	41%	22%	17%	0%	36%
2004	5,114	500	5,968	707	250	12,539	12,029	4,280			50	28,898	40%	43%	18%	21%	2%	42%
2005	4,418	344	2,237	473	250	7,722	3,300	7,855			24	18,901	37%	41%	23%	12%	2%	17%
2006	2,529	120	3,347	331	250	6,577	1,096	2,276			4	9,953	60%	66%	25%	34%	1%	11%
2007	2,074	73	4,515	302	200	7,164	942	2,442				10,548	63%	68%	20%	43%	1%	9%
2008	2,472	222	4,584	78	250	7,606	1,375	3,242				12,223	60%	62%	20%	38%	2%	11%
2009	1,446	114	3,082	213	250	5,105	159	1,290				6,554	71%	78%	22%	47%	2%	2%
TOTAL	91,853	5,387	110,310	12,039	1,950	221,540	65,579	72,493	-	309	1,078	360,999	57%	61%	25%	31%	1%	18%
PERCENT	25%	1%	31%	3%	1%	61%	18%	20%	0%	0%	0%	100%						

Table 7. Hidden Falls Chinook
Troll Contribution by Fishing Period

CHINOOK YEAR	WINTER TROLL	EXPERIMENTAL AREA	TERMINAL AREA	TRADITIONAL			TOTAL TROLL
				May-June	July	Aug-Sept	
1985				3	11	-	14
1986				7	43	73	123
1987	27	12		55	196	-	291
1988	140	10		-	94	-	244
1989	64			34	48		145
1990	57			38	162	50	307
1991	253	60		299	161		774
1992	407	31		216	118	13	785
1993	29	62			48	45	185
1994	47	181			517	302	1,048
1995	412	4,272			1,271	384	6,339
1996	190	4,611	10,651		1,700	39	17,192
1997	44	3,824	6,495		340	137	10,840
1998	252	756	656		354	294	2,312
1999	382	1,628	1,737		516	204	4,467
2000	585	2,329	5,271		396	864	9,445
2001	381	3,378	2,416		389	97	6,661
2002	107	1,512	4,524	-	217	231	6,591
2003	470	1,561	2,858		1,023	124	6,036
2004	1,169	2,146	1,184		508	107	5,114
2005	753	1,741	1,210		523	192	4,419
2006	326	1,336	312		320	235	2,529
2007	477	1,153	126		205	113	2,074
2008	308	1,241	761		97	68	2,475
2009	429	680	99		97	68	1,373
TOTAL	7,310	32,525	38,300	653	9,355	3,640	91,784
PERCENT	8%	35%	42%	1%	10%	4%	100%