



# FISH PASSAGE CENTER

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August 29, 2007

David Carie  
 Mid-Columbia River Fisheries Resource Office  
 7501 Icicle Road  
 Leavenworth, WA 98826

Dear David-

The Fish Passage Center has been marking fish from the Leavenworth National Fish Hatchery facility over the last several years as part of the Smolt Monitoring Program (SMP). For purposes of these studies data are collected on either juvenile life stage, or both the juvenile and adult life stages. The SMP provides information for in-season management of the hydrosystem and post-season analyses to the federal, state, and tribal fishery agencies. We would like to share with you some of the information we developed under this study for the fish used from the Leavenworth National Fish Hatchery facility.

Under the Smolt Monitoring Program, information is collected on the timing, migration speed, and survival of juveniles from the hatchery to McNary Dam.

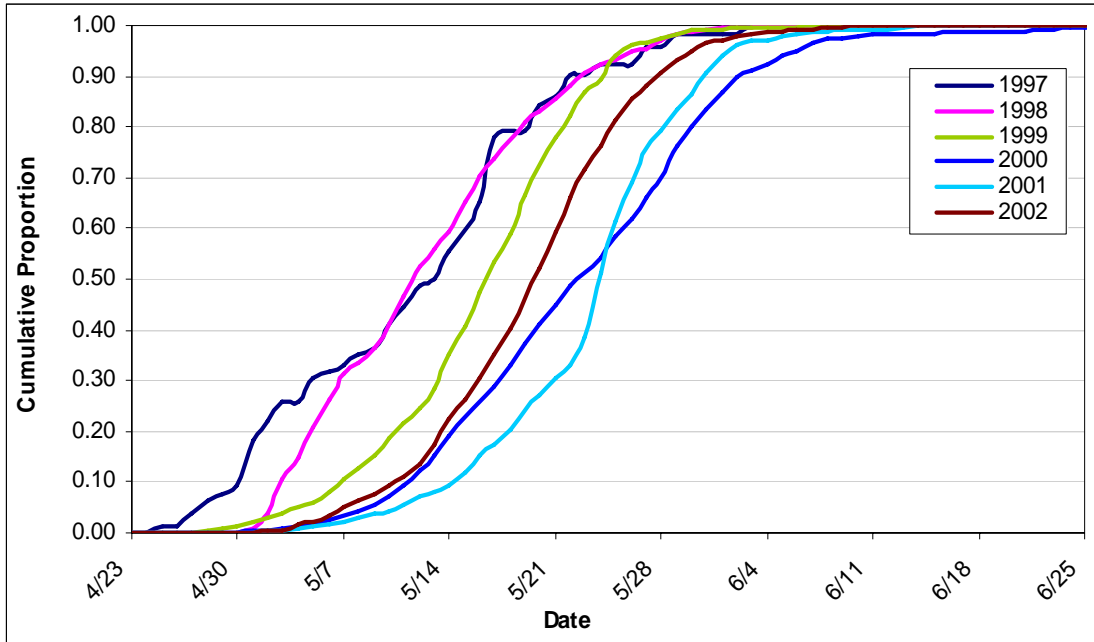
**Leavenworth Hatchery Spring Chinook Travel Times to McNary Dam**

Release Date	Migration Year	Travel Time (Days)			Confidence Limits 95%		Priest Rapids	
		Min	Med	Max	Lower	Upper	Flow (kcfs)	Temp (F)
17-Apr	1997	8.6	28.7	52.2	22.7	41.8	92	44
20-Apr	1998	10.3	21.7	55.1	21.2	22.2	141.7	50.1
19-Apr	1999	6.8	27.8	55.7	27.3	28.1	171.1	47.1
18-Apr	2000	11.9	36.1	79.2	34.6	36.9	184.7	
17-Apr	2001	11.3	37	72	36.9	37.2	63.8	50.5
22-Apr, 24-Apr	2002	3.6	35.9	64.4	25.9	26	100.3	
21-Apr	2003	5.8	27.6	110.1	27.4	27.7	83.9	
19-Apr	2004	0.1	25.2	107.2	25.1	25.1	104.3	
15-Apr	2005	11.9	29.8	116.7	29.4	30.1		
17-Apr	2006	22.8	28.5	48.2	28.3	28.8	108.2	
18-Apr	2007	7.7	30.8	65.1	30.4	31.2	171.4	

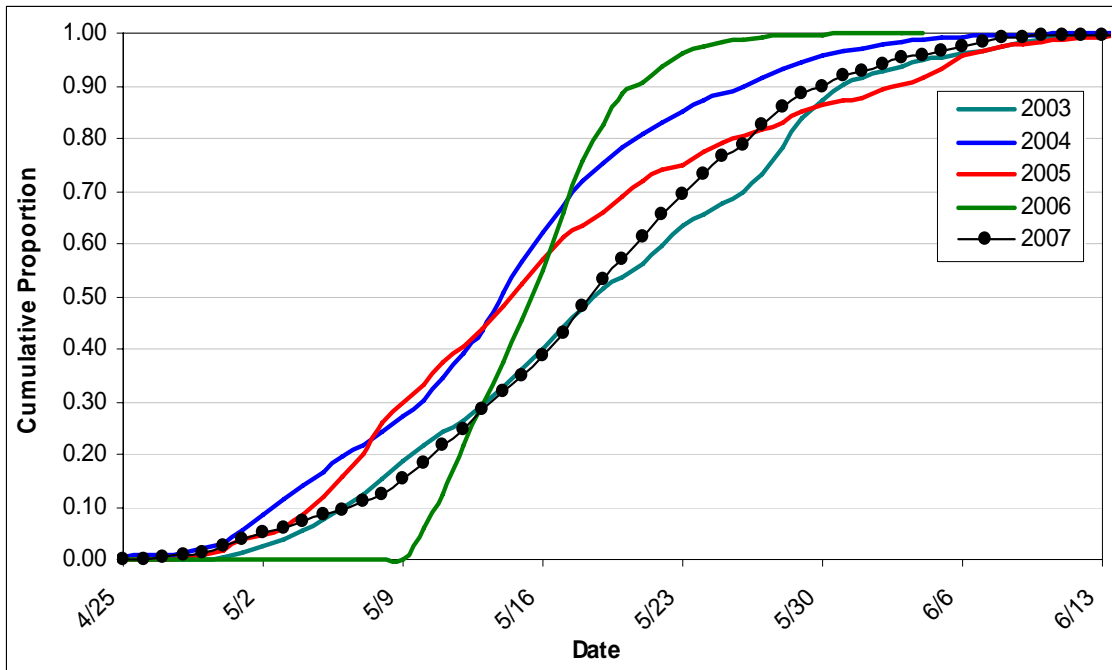
The above table describes the median travel times from each release to McNary Dam along with the minimum and maximum travel times. It also provides the 95% confidence limits around the estimated median travel time.

We are also providing the following graphs which show passage timing of the hatchery releases to McNary Dam for the past eleven years. To better facilitate comparison, we have broken the years into two separate graphs. Please note the different scales on the x-axis.

**Leavenworth Hatchery – Spring Chinook (1997-2002)  
Passage Timing to McNary Dam**



**Leavenworth Hatchery – Spring Chinook (2003-2007)  
Passage Timing to McNary Dam**



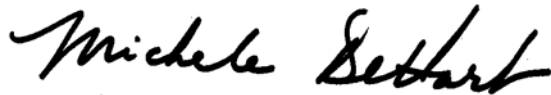
Finally, we are providing estimates of survival from release at the hatchery to McNary Dam, along with the upper and lower confidence limits on these estimates.

Leavenworth Hatchery Spring Chinook survivals (Release to McNary Dam)

Release Date	Migration Year	Survival	Confidence Limits (95%)	
			Lower	Upper
17-Apr	1997	N/A	N/A	N/A
20-Apr	1998	0.546	0.491	0.602
19-Apr	1999	0.586	0.550	0.622
18-Apr	2000	0.593	0.520	0.667
17-Apr	2001	0.501	0.484	0.517
22-Apr, 24-Apr	2002	0.560	0.553	0.567
21-Apr	2003	0.662	0.655	0.669
19-Apr	2004	0.483	0.473	0.494
15-Apr	2005	0.526	0.500	0.553
17-Apr	2006	0.558	0.531	0.586
18-Apr	2007	0.592	0.569	0.615

We hope that the information we have provided regarding the use and application of information from the marked groups over the last several years is of some use to you. If you would like any additional information regarding these releases please feel free to contact us.

Sincerely,



Michele DeHart  
Fish Passage Center Manager

Cc: Pete Hassemer, IDF&G  
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