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ANNUAL REPORT  
FEATHER RIVER SALMON AND STEELHEAD HATCHERY  
1975-76

by

Donald L. Schlichting  
Region 2

Anadromous Fisheries Branch  
Administrative Report No. 78-14

1978

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ABSTRACT

This report describes the operation of Feather River Hatchery from July 1, 1975 through June 30, 1976. Tables present the numbers of adult salmon and steelhead received, fish produced and planted, records of marked fish observed, and water temperature and flow data.

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<sup>1/</sup> Anadromous Fisheries Branch Administrative Report No. 78-14  
Submitted August 1977.

## INTRODUCTION

This report describes activities of Feather River Hatchery, during its ninth year of operation, July 1, 1975 to June 30, 1976.

The hatchery is located near the upper Thermalito Bridge in Oroville, California, and was constructed by the California Department of Water Resources as part of the California Water Project to compensate for loss of spawning area above Oroville Dam. It is operated by the Department of Fish and Game with funds provided by the Department of Water Resources.

## PRODUCTION SUMMARY

Personnel from Feather River Hatchery trapped 5,743 king salmon (Oncorhynchus tshawytscha) and 573 steelhead (Salmo gairdnerii gairdnerii) during the 1975-76 season (Table 1). We took 13,325,395 salmon and 922,420 steelhead eggs and planted 4,715,695 salmon and 982,975 steelhead.

Table 1. Feather River Hatchery Production Summary,  
1975-76 Season

Species/ brood year	Adults, trapped or received	Females spawned	Eggs taken or received	Fish planted		Estimate on hand 6/30/76
				fingerlings	yearlings	
King salmon, spring run						
1974 BY	0	0	0		118,800	0
1975 BY	691	309	1,463,570	487,550		177,000
King salmon, fall run						
1974 BY	0	0 <sup>a/</sup>	0 <sup>b/</sup>		837,595	
1975 BY	5,052	2,064 <sup>a/</sup>	11,761,825 <sup>b/</sup>	3,271,750		855,000
Steelhead						
1975 BY	0	0	0	751,600	241,375	0
1976 BY	573	245	882,310	0	0	614,130
1976 BY (Nimbus summer-run)			40,110			35,620

<sup>a/</sup> In addition, 164 females spawned in the spawning channel.

<sup>b/</sup> Spawning channel migrants were not counted.

<sup>c/</sup> Received as eggs from Nimbus Hatchery.

## MARKING PROGRAMS

Personnel from Anadromous Fisheries Branch marked 210,770 1975 broodyear (BY) king salmon with an adipose fin clip and tagged them with coded wire nose tags (CWT). These fish were used to test the efficiency of the fish screen at the Tracy Pumping Plant.

An additional 204,700 1975 BY fall-run salmon were marked with blue dye as part of a study of migration patterns.

In order to evaluate contributions to the fishery and hatchery returns, 97,350 1974 BY spring-run salmon were marked LV-RP prior to release.

## KING SALMON MAINTENANCE PROGRAM

### History of the 1975-76 Runs

#### 1975 BY Spring Run

The fish ladder was opened on September 2, 1975 to allow the spring-run king salmon adults to enter the hatchery. We received 691 spring-run fish between September 2 and September 11, 1975. The surviving spring-run adults were sexed on October 3, 1975. At that time we had 330 females and 283 males on hand. Of the 330 females, we successfully spawned 309 from October 3 through October 30, 1975. The spawning yielded 1,563,570 eggs for an average of 5,060 eggs/female.

An estimated 1,375,200 fingerlings were transferred to the ponds for an average fertility rate of 88%. These fish suffered a loss of nearly 600,000 fish, primarily to infectious hematopoietic necrosis (IHN). A total of 487,550 were planted as smolts in May and June. An estimated 177,000 fish remained on hand June 30, 1976. These were to be planted as yearlings the following season.

#### 1975 BY Fall Run

The first fall-run king salmon entered the hatchery on October 3 and the last was received on December 31, 1975 (Appendix Table 1). The season total was 5,052 fish. We spawned 2,064 females this season, October 3 through December 23, 1975 and took 11,761,825 eggs, for an average of 5,699 eggs/female. Fry production totaled 9,669,405 with an estimated 5,512,600 loss to IHN. Between May 12 and June 22, 1976 we planted 3,271,750 fall-run 1975 fry. An estimated 885,000 1975 fall-run salmon remained on hand as of June 30, 1976.

### Recovery of Marked King Salmon

All king salmon entering the hatchery were examined for marks. We observed a total of 14 marked fish (Appendix Tables 2 and 3).

### King Salmon Planting

We planted an estimated 3,759,300 fingerling and 956,395 yearling king salmon this season (Table 2).

Table 2. King Salmon Planting Summary, Feather River Hatchery, 1975-76

Brood year	Race	Month of release	Average size (g)	Number released	Mark	Release site
1974	Spring run	Jan. 1976	63	21,450	LP-RV	Feather R. @ Gridley
		Jan. 1976	63	97,350		Feather R. @ Gridley
			TOTAL	118,800		
1974	Fall run	Oct. 1975	31-45	553,175		Feather R. @ Gridley
		Nov. 1975	37-41	284,420		Feather R. @ Gridley
			TOTAL	837,595		
1975	Spring run	May 1976	5	201,550		Sacto. R. @ Rio Vista
		Jun. 1976	5-7	286,000		Sacto. R. @ Rio Vista
			TOTAL	487,550		
1975	Fall run	May 1976	3-6	1,214,680		Sacto. R. @ Rio Vista
		May 1976	5	31,540		Tracy Pumping Plant
		May 1976	6	24,800		San Joaquin R. @ Antioch
		Jun. 1976	5	204,700		Sacto. R. @ Garcia Bend
			5-8	1,514,050		Sacto. R. @ Rio Vista
			6	73,280		Tracy Pumping Plant
			5-6	208,700		San Joaquin R. @ Antioch
			TOTAL	3,271,750		

#### STEELHEAD MAINTENANCE PROGRAM

##### History of the 1975-76 Production

##### 1976 BY (Wild)

Steelhead were not counted or held until December 4, 1975. From December 4, 1975 through March 6, 1976, 66 marked and one tagged fish were counted and measured as they entered the hatchery (Appendix Tables 4 and 5).

The total run was 573 fish: 312 males and 261 females. We successfully spawned 245 females (Table 3) and took 882,310 eggs. An estimated 779,460 fry were transferred to the ponds for a survival rate of 88%. No fish were planted this season. Losses amounted to 165,300 fry, leaving on hand 614,130 fish on June 30, 1976.

Table 3. Steelhead Spawning Data

Date	Fish spawned		Date	Fish spawned	
	M	F		M	F
1/ 2/76	10	15	2/ 9/76	6	35
1/12/76	10	23	2/17/76	70	32
1/19/76	45	35	2/23/76	21	13
1/26/76	92	40	3/ 1/76	14	7
2/ 2/76	12	33	3/ 8/76	12	12

1976 BY (Nimbus)

In an experimental attempt to build a summer run of steelhead in the Feather River, 40,110 summer-run eggs were brought from Nimbus Hatchery on the American River. We had approximately 35,620 fingerlings on hand June 30, 1976 which were to be planted as yearlings the following year.

Steelhead Planting

We planted an estimated 982,975 steelhead during the 1975-76 season (Table 4).

Table 4. Steelhead Planting Summary, 1975 Broodyear,  
Feather River Hatchery, 1975-76

Date	Average size (g)	Number released	Release site
July-Aug. 1975	1.9	741,600	Feather R. @ Montgomery
Feb. 1976	56-75	113,240	Feather R. @ Yuba City
Mar. 1976	64-90	128,135	Feather R. @ Yuba City
<b>TOTAL</b>		<b>982,975</b>	

VISITOR USE

During the 1975-76 fiscal year 139,070 people visited the installation.

Appendix Table 1  
Feather River Salmon and Steelhead Hatchery  
Weather, Water, and Fish Data Report

July 1975	Temperature (C) *				Weather	Fish Trapped				Steelhead
	Air		Water			King Salmon				
						Fall Run	Spring Run			
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	26	9.5	14.4	13.3	Clear					
2	27.5	14	15.0	14.4						
3	26.5	11.5	15.0	15.0						
4	27	12	15.0	15.0						
5	31	16	15.6	14.4						
6	34	15	16.1	15.0						
7	34	14	16.1	15.6						
8	18	15.5	16.1	15.6						
9	36	11	16.1	15.6						
10	38	16	16.1	15.6						
11	38	15	16.1	15.0						
12	36	15	15.0	15.0						
13	35	15	15.0	15.0						
14	31	16	15.6	15.0						
15	24	17.5	15.0	15.0	Clear					
16		18.5	15.6	15.0						
17			16.1	15.6						
18			15.6	15.0						
19			15.6	15.6						
20			16.1	15.6						
21			16.1	16.1						
22	41	26	16.7	16.1						
23	41	22	16.7	16.1						
24	44.5	19	16.7	16.1						
25	43	16.5	17.2	16.7						
26	37	15	16.7	16.7						
27	32	15	16.7	16.1						
28	29	13	16.7	16.1						
29	32	26	16.7	15.6						
30	35.5	14	17.2	16.7						
TOTAL										

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

August	Temperature (C)*					Fish trapped				Steelhead
	Air		Water		Weather	King salmon				
	Maximum	Minimum	Maximum	Minimum		Fall run		Spring run		
						Adults	Grilse	Adults	Grilse	
1	34	18.5	17.2	15.6	Clear	Earthquake				
2	40.5	20	16.1	15.6	Clear					
3	40	18	16.1	15.0	Clear					
4	37	13.5	16.7	16.1	Clear					
5	38	14	16.1	16.1	Clear					
6	30	11.5	16.1	15.0	Clear					
7	33	14.5	15.0	14.4	Clear					
8	35	17.5	15.6	14.4	Clear	warm				
9	37	15.5	16.1	15.6	Clear					
10	37.5	16	15.6	15.6	Clear					
11			16.1	15.6	Clear					
12			16.1	15.6	Clear					
13	32		16.1	15.6	Clear					
14	31.5	13.5	16.1	15.6	Clear					
15	32	13.5	16.1	15.6	Clear					
16	31	14.5	16.1	15.6	Cloudy					
17	26	16.5	16.1	15.6	Rain					
18	19.5	16	16.1	15.0	Cloudy					
19	26	14	16.7	15.0	Cloudy					
20	31	13		16.1	Clear					
21	31	18	16.7	15.6	Rain					
22	34	16.5	16.7	16.1	Clear					
23	33	15	16.1	15.6	Clear					
24	35	17.5	15.6	13.9	Clear					
25	35.5	15	15.6	15.0	Clear					
26	28	13	15.6	15.6	Clear					
27	26	19	15.6	14.4	Cloudy					
28	29.5	13.5	15.6	14.4	Clear					
29	31.5	12	15.6	14.4	Clear					
30	30	12	15.0	14.4	Clear					
31	30	11	15.0	14.4	Clear					

\* Temperatures measured in F and converted to C.



Appendix Table 1 (Continued)

September	Temperature (C)*					Fish trapped				Steelhead
	Air		Water		Weather	King salmon		Adults	Grilse	
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run			
						Adults	Grilse			
1	30	12	15.0	14.4	Clear					
2	33	14.5	15.0	14.4	Clear					
3	34	12	14.4	13.3	Clear					
4	38.5	17.5	13.3	12.2	Clear					
5	41	16	12.8	12.2	Clear					
6	40	15	12.8	12.8	Clear					
7			13.3	12.8	Clear					
8			13.3	12.8	Cloudy					
9	38	14	13.3	12.8	Rain					
10	20.5	17	13.3	12.8	Cloudy					
11	31.5	15	13.3	12.2	Clear			613	78 (Inventory count)	
12	32	18.5	12.8	11.7	Clear					
13	32	12	12.2	12.2	Clear					
14	31	13	12.2	11.7	Clear					
15	31	12.5	12.8	11.7	Clear					
16	32.5	20	12.8	12.2	Clear					
17	34	13.5	12.8	12.2	Clear					
18	32	13	12.8	12.2	Cloudy					
19	30	13	12.8	11.7	Clear					
20	30.5	14.5	12.8	12.2	Clear					
21	33.5	14	13.9	12.2	Clear					
22	33	13.5	13.9	12.8	Clear					
23	36	15	13.9	12.8	Clear					
24	32	18	13.9	12.8	Clear					
25	36	12.5	13.3	12.2	Clear					
26	36	20	12.2	11.1	Clear					
27	36	21	12.2	11.7	Clear					
28	34	11.5	12.2	11.7	Clear					
29	33	10	12.2	11.7	Clear					
30	31	10.5	11.7	11.7	Clear					
Total								613	78	

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

						Fish trapped				Steelhead	
Temperature (C)*						King salmon					
						Fall run		Spring run			
October	Air		Water		Weather	Adults	Grilse	Adults	Grilse		
	Maximum	Minimum	Maximum	Minimum							
1	30	13	12.2	11.7	Clear						
2	29	12	12.2	11.7	Clear						
3	30.5	13.5	12.8	11.7	Clear	174	41				
4	31	14.5	12.8	12.2	Clear						
5	31.5	15	12.8	12.2	Cloudy						
6	18	7	12.8	12.2	Rain	146	64				
7	16	3	12.8	11.7	Clear						
8	18	11.5	12.2	11.7	Clear						
9	15	10	12.2	11.1	Cloudy						
10	15	10	11.7	11.1	Clear	475	78				
11	18	6	11.7	11.7	Clear						
12	22	8	11.7	11.7	Clear						
13	23	8	12.2	11.7	Clear						
14	17	11	12.8	11.7	Clear	333	105				
15	25	10	12.8		Clear						
16	26	11	12.8	12.8	Clear						
17	24	10	11.7	10.6	Clear	335	55				
18	15	8	11.1	10.6	Clear						
19	32	9.5	11.7	11.1	Clear						
20	17	11	11.1	11.1	Clear						
21	24	7	11.1	11.1	Clear	188	30				
22	17	11	11.1	11.1	Clear						
23	15	6.5	11.7	11.1	Clear						
24	19	10.5	11.7	11.1	Clear	461	99				
25	13	9.5	11.7	11.1	Rain						
26	15.5	6	11.1	11.1	Clear						
27	16	4.5	12.2	11.1	Clear	324	76				
28	16	5	12.2	12.2	Clear						
29	18	3	12.2	12.2	Clear						
30	17	5	12.2	11.1	Clear						
31	22	17	12.2	11.7	Clear	451	154				
Total						2887	702				

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

November	Temperature (C)					Fish trapped				Steelhead
	Air		Water		King salmon					
	Maximum	Minimum	Maximum	Minimum	Fall run		Spring run			
					Adults	Grilse	Adults	Grilse		
1	20	17	12.2	11.7	Clear					
2	22	17	12.2	11.7	Clear					
3	24	18	12.2	11.7	Clear	202	63			
4	19	11	11.7	11.7	Clear					
5	16	5	11.7	11.1	Rain					
6	17	11	11.7	11.1	Clear					
7	13.5	4	11.7	11.1	Clear	191	8			
8	14	2	11.7	11.7	Clear					
9	11	8	11.7	11.7	Clear					
10	13.5	2	11.7	11.1	Clear	131	60			
11	15.5	3	12.2	11.1	Clear					
12	18	11	12.2	11.7	Clear					
13	16	6.5	11.7	11.7	Clear					
14	14	10	11.7	11.7	Clear	153	14			
15	12	10	11.7	11.7	Rain					
16	14	2	11.7	11.7	Cloudy					
17	12.5	1.5	11.7	11.7	Clear					
18	12	2	11.7	11.1	Clear					
19	17	3.5	11.7	11.7	Cloudy					
20	17	5	11.7	11.1	Cloudy					
21	23	6	11.1	11.1	Clear	249	64			
22	14	4.5	11.1	11.1	Clear					
23	25	7	11.1	10.6	Clear					
24	19	6	11.1	10.6	Clear					
25			11.1	10.0	Clear					
26	9		10.6	10.0	Cloudy	142	56			
27	12	5	11.1	9.4	Cloudy					
28	14	3	10.6	9.4	Cloudy					
29	11	7	10.0	8.9	Cloudy					
30	20	6.5	10.6	9.4	Cloudy					
Total						1068	265			

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

December	Temperature (C) *				Weather	Fish trapped				Steelhead	
	Air		Water			King salmon		M	F		
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run				
										Adults	Grilse
1	25	6.5	10.6	9.4	Clear	47	23				
2			10.0	8.9	Clear						
3	16	5	9.4	8.9	Clear						
4	16	5	10.0	9.4	Clear	12	0				
5	16	6.5	10.6	9.4	Clear	22	25		16		6
6	16.5	4	9.4	9.4	Clear						
7	14.5	4	9.4	9.4	Clear						
8	12	4	9.4	8.9	Fog						
9			9.4	9.4	Fog						
10	6	4	10.0	9.4	Fog						
11	7	6	10.0	9.4	Fog						
12	13	2	9.4	8.9	Clear	110	20		30		27
13	11.5	-1	9.4	8.9	Clear						
14	12	6.5	9.4	8.9	Clear						
15	11	2	9.4	8.9	Clear						
16			8.9	8.9	Clear	23	3		18		15
17	14.5	11	8.9	8.3	Clear						
18	14	2	8.9	8.3	Clear						
19	15	1.5	8.9	8.9	Clear	15	6		12		1
20	14.5	3.5	8.9	8.9	Clear						
21	11.5	7	8.9	8.9	Cloudy						
22	11	1.5	8.9	8.3	Cloudy						
23			8.9	8.9	Clear						
24	11.5	1.5	9.4	8.3	Clear	17	0		27		24
25	9	3.5	9.4	8.9							
26	10	6	8.9	8.9	Clear						
27	10	6	8.9	7.8	Clear						
28	11	4	8.9	8.3	Clear						
29	17	5.5	8.3	8.3	Clear						
30	15.5	3	8.3	8.3	Clear						
31	11	0	8.3	8.3	Clear	12	7		39		33
Total						258	84		142		106

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

January	Temperature (C) *					Fish trapped				Steelhead	
	Air		Water		Weather	King salmon		M	F		
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run				
						Adults	Grilse			Adults	Grilse
1	10	2.5	8.3	8.3	Clear			2	3		
2	10	2.5	8.3	8.3	Clear						
3	9.5	2	8.3	8.3	Clear						
4			8.3	7.8	Clear						
5	8.5	-1	7.8	7.8	Clear						
6	7.5	5	7.8	7.8							
7	11	0	7.8	7.8							
8	6	2	7.8	7.8	Clear			23	22		
9	6	4	7.8	7.8	Rain						
10	7	3	7.8	7.8	Fog						
11	10	4	7.8	7.8	Fog			6	7		
12			7.8	7.8	Fog						
13			7.8	7.2	Clear						
14	13	3	7.2	7.2	Clear						
15	14	4	7.2	7.2	Clear						
16	15.5	4.5	7.2	7.2	Clear						
17	19	3	7.2	7.2	Clear						
18	18	3	7.2	7.2	Clear			30	25		
19	20	14	7.8	7.2	Clear						
20	17	3	7.2	7.2	Clear						
21		-3	7.8	7.2	Clear						
22	17	4	8.3	7.8	Clear						
23	12	3	8.3	8.3	Clear						
24	17	1	8.3	7.8	Clear						
25	16	3.5	8.3	8.3	Clear			45	38		
26	16	2	8.3	7.8	Clear						
27	15	4	7.8	7.8	Clear						
28	17	4	7.8	7.8	Clear						
29	18	4.5	7.8	7.8	Clear						
30	20	3.5	7.8	7.8	Clear						
31	20	6	7.8	7.8	Clear			106	95		
Total											

\* Temperatures measured in F and converted to C.

Appendix Table 1 (Continued)

February	Temperature (C) *					Fish trapped				Steelhead	
	Air		Water		Weather	King salmon				M	F
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run				
						Adults	Grilse	Adults	Grilse		
1	17	4	7.8	7.8	Clear					20	20
2	21	5	7.8	7.8	Clear						
3	19	4.5	7.8	7.8	Clear						
4	9	0	7.8	7.8	Rain						
5	12	5	7.8	7.8	Cloudy						
6	12.5	1.5	7.8	7.8	Cloudy						
7	17	6.5	7.8	7.8	Rain						
8	13	5	7.8	7.8	Rain					8	10
9	18	2	7.8	7.8	Clear						
10	18	13.5	7.8	7.8	Clear						
11	17	2	7.8	7.8	Clear						
12			8.3	7.8	Clear						
13			8.3	8.3	Cloudy						
14			8.3	8.3	Rain						
15			8.3	7.8	Rain						
16			7.8	7.8	Rain					12	13
17			7.8	7.8	Cloudy						
18	12	6	7.8	7.8	Clear						
19	14	2	7.8	7.8	Cloudy						
20	15.5	5	7.8	7.8	Clear						
21	15	13.5	7.8	7.8	Cloudy						
22	14	3.5	7.8	7.8	Cloudy						
23	15	8	7.8	7.8	Cloudy					9	8
24	12	6	7.8	7.8	Clear						
25			7.8	7.8	Rain						
26	16	8	7.8	7.8	Rain						
27	17	11	7.8	7.8	Rain						
28	15	8.5	7.8	7.8	Rain						
29	11	4	8.3	7.8							
Total										49	51

\* Temperatures measured in F and converted to C.



Appendix Table 1 (Continued)

April	Temperature (C) *				Weather	Fish trapped				Steelhead
	Air		Water			King salmon				
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run			
						Adults	Grilse	Adults	Grilse	
1	14	2	9.4	8.3	Clear					
2	17	4	10.0	8.9	Clear					
3	12	5	10.0	9.4	Cloudy					
4	14	8	10.6	9.4	Cloudy					
5	11	9	10.6	9.4	Rain					
6	15	8	9.4	8.9	Cloudy					
7	17	2	9.4	9.4	Rain					
8	13	5	9.4	9.4	Rain					
9	16	8	10.0	9.4	Cloudy					
10	13	5.5	10.0	10.0	Rain					
11	14	7	10.0	9.4	Cloudy Rain					
12	15	4.5	10.0	9.4	Clear					
13	16	5	10.6	10.0	Clear					
14	23	7	10.6	10.0	Clear					
15	15	3	11.1	10.6	Partly cloudy Windy					
16	15.5	6	10.6	10.6	Clear windy					
17	19	9.5	10.6	10.6	Partly cloudy					
18	18	8	11.1	10.6	Clear					
19	26	9	11.7	10.6	Clear					
20	27	11	11.1	10.6	Clear					
21	23	10	11.1	10.6	Clear					
22	18	8	11.7	11.1	Clear					
23	25	10	11.7	11.1	Clear					
24	25	6	11.1	10.6	Clear					
25	19.5	7.5	11.1	10.6	Clear					
26	19	6.5	12.2	11.1	Clear					
27	22	7	12.2	11.7	Clear					
28	24.5	7.5	12.2	11.1	Clear					
29	24.9		11.7	11.1	Clear					
30	31	11	11.7	11.1						

\* Temperatures measured in F and converted to C.



Appendix Table 1 (Continued)

May	Temperature (C) *					Fish trapped				Steelhead
	Air		Water		Weather	King salmon				
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run			
						Adults	Grilse		Adults	
1	28	9.5	11.7	11.1	Clear					
2	27	9	12.2	11.7	Clear					
3	29	8.5	12.2	11.7	Clear					
4	25.5	12	12.2	11.7	Clear					
5	24	9	12.2	11.7	Clear					
6	27	15	13.9	12.2	Clear					
7	30	13	13.9	12.8	Clear					
8	29	11	12.8	12.8	Clear					
9	30	12	15.0	12.8	Clear					
10	29	11	15.6	12.8	Clear					
11	33	14	12.8	12.8						
12	36	12	13.9	12.8	Clear					
13	16	13	13.3	12.2	Clear					
14	30	14	12.8	12.2	Clear					
15	33	14.5	13.3	12.8	Clear					
16	30	9	15.6	13.3	Clear					
17	17	9	15.6	13.9	Clear					
18	25	9	13.9	12.8	Clear					
19	26	22	13.3	12.2	Clear					
20	29	14	12.8	12.2	Clear					
21	28	10	12.8	12.8	Clear					
22	29	10	12.8	12.8	Clear					
23	27.5	9.5	13.3	12.8	Clear					
24	27.5	10.5	13.3	12.2	Clear					
25	31	13.5	13.3	12.8	Clear					
26	35	8	13.3	13.3	Clear					
27	30	9	13.3	13.3	Clear					
28	26	9	13.9	13.3	Clear					
29	17	11.5	13.9	13.3	Clear					
30	23	14.5	13.9	13.3	Clear					
31	25.5	9	13.9	12.8	Clear					

\* Temperatures measured in F and converted to C.

Appendix Table 1 (continued)

June	Temperature (C)*					Fish trapped				Steelhead	
	Air		Water		Weather	King salmon				M	F
	Maximum	Minimum	Maximum	Minimum		Fall run	Spring run				
						Adults	Grilse	Adults	Grilse		
1	16.5	10	13.9	12.2	Clear						
2	25	15	13.9	13.3	Clear						
3	16	11.5	13.9	12.8	Clear						
4	28	9.5	13.9	13.3	Clear						
5	26	9	14.4	13.3	Clear						
6	25	11	14.4	13.3	Clear						
7	22	10	14.4	13.3	Clear						
8	26	12	13.9	12.8	Clear						
9	26	9	14.4	13.9	Clear						
10	24	11	14.4	13.9	Clear						
11	25	11	14.4	13.9	Clear						
12	29	13.5	14.4	13.9	Clear						
13	32.5		15.6	13.9	Clear						
14	36	17	16.1	14.4	Clear						
15	37	15	15.6	14.4	Clear						
16		11	15.0	14.4	Clear						
17			15.0	15.0	Clear						
18			15.6	15.0	Clear						
19			15.6	15.0	Clear						
20			15.6	15.0	Clear						
21			15.6	13.9	Clear						
22			15.6	14.4	Clear						
23		15	16.1	15.6	Clear						
24	37	15	16.1	16.1	Clear						
25	37	15	16.1	16.1	Clear						
26	27	2	16.1	15.6	Clear						
27	40	20	16.7	16.1	Clear						
28	38	17	16.7	15.6	Clear						
29	34	13	16.1	15.0	Clear						
30	27	15	15.0	13.9	Clear						
Season Total						1213	1051	613	78	312	261

\* Temperatures measured in F and converted to C.

Appendix Table 2. Probable Origin of Marked King Salmon Recovered at Feather River Hatchery,  
1975 Season

Mark	Brood year	Number recovered	Release data			Number released	Origin
			Area	Size (g)	Date		
Ad (CWT)	1973	3	San Joaquin River	6-8	May-June 1974	307,001	Feather R. Hatchery
An-LP	1969	1	Feather R. @ Hatchery	61	Feb. 1971	46,650	Feather R. Hatchery
			Sacramento R. @ Rio Vista				
LV-LP	?	3					
LP	?	2					
RP	1970	5	Feather River	65	Nov. 1971	60,200	Feather R. Hatchery

Appendix Table 3. Fork Lengths (to nearest inch) of Marked King Salmon  
Trapped at Feather River Hatchery, 1975-76 Season

FL Inches	Ad		An-LP		LV-LP		LP		RP	
	M	F	M	F	M	F	M	F	M	F
15									1	
17					2					
19										
20										
21										
22										
23	1									
24										
25					1		1			
26										
27										
28										
29	1									
30	1									
31										
32								1		
33										1
34			1							1
35										
36										1
37										1
38										
TOTAL	3		1		3		2		5	

Appendix Table 4. Probable Origin of Marked Steelhead Recoveries, Feather River Hatchery,  
1975-76 Season

Mark	Brood year	Number recovered	Area	Average size (g)	Date	Number released	Origin
Ad-LV-RP	1971 }	40	Feather River	68	Fall 1971	34,450	Feather R. Hatchery
	1972 }		Feather River	89	Mar. 1973	30,000	Feather R. Hatchery
Ad-RV-LP	1971 }	18	Feather River	68	Fall 1971	30,400	Feather R. Hatchery
	1972 }		Feather River	87	Mar. 1973	30,000	Feather R. Hatchery
LV-RV	1973(winter)	5	Sacramento R. @ Garcia Bend	86	Mar. 1974	49,062	Nimbus Hatchery
LV-LP	?	1					
RV	1973(winter)	1	Sacramento R. @ Clarksburg	80	Jan. 1974	50,017	Nimbus Hatchery
LP	1973(summer)	1	Sacramento R. @ Garcia Bend	50-103	Feb. 1974	104,598	Nimbus Hatchery

Appendix Table 5. Fork Lengths (to nearest inch) of Marked Steelhead  
Trapped at Feather River Hatchery, 1975-76

Length	Ad-LV-RP		Ad-RV-LP		LV-RV		LV-LP		RV		LP	
	M	F	M	F	M	F	M	F	M	F	M	F
14												
15												
16	1											
17												
18						1						
19		1										
20	2	1		1								
21		4										
22	5	4	3	2			1				1	
23	6	5		1	2							
24	5	3	1	1		1						
25		1	1	3		1				1		
26	1	1	3	1								
27												
28			1									
29												
30												
31												
32												
33												
34												
35												
TOTAL	40		18		5		1		1		1	