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The Resources Agency of California
Department of Fish and Game

ANNUAL REPORT
TRINITY RIVER SALMON AND STEELHEAD HATCHERY
NINTH YEAR OF OPERATION 1966-67^{1/}

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SUMMARY

King salmon, Oncorhynchus tshawytscha, started entering the hatchery on September 12, 1966. The run ended November 23. Silver salmon, Oncorhynchus kisutch, started entering the hatchery on October 19, 1966. The run ended December 27. Steelhead trout, Salmo gairdneri gairdnerii, began entering the hatchery on September 12, 1966, and continued through April 27, 1967. A few brown trout, Salmo trutta, entered the hatchery from October 28 to December 27, 1966.

Production data are as follows:

Species	Number adults	Number females spawned	Number eggs taken	Number fingerlings planted	Number yearlings planted	Total pounds planted	On hand June 30, 1967
King salmon	2,054	1,000	3,332,000	2,873,600		2,568	54,300
Silver salmon	218	159	314,170		614,700	39,160	781,000
Steelhead trout	135	54	207,400		840,848	128,383	1,029,885
Brown trout	152	42	75,600				85,300

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^{1/}Submitted October, 1967
Inland Fisheries Administrative Report No. 67-11.

INTRODUCTION

This is the ninth consecutive fiscal year report covering operation of the Trinity River Salmon and Steelhead Hatchery, located near Lewiston, Trinity County. Copies of the previous reports are available upon request from Inland Fisheries Branch, Sacramento.

The hatchery was constructed by the United States Bureau of Reclamation to compensate for spawning areas blocked by the Trinity River Project. The California Department of Fish and Game began operation of the permanent installation on May 15, 1963, with funds for operation and maintenance supplied by the Bureau.

Operation of the hatchery from July 1, 1966, through June 30, 1967, is described in this report.

KING SALMON MAINTENANCE PROGRAM

History of the 1966 Salmon Run

The first king salmon of the 1966 run began to enter the hatchery fish ladder on September 12, when the barrier at the foot of the ladder was raised to allow the salmon to move from the resting pool to the hatchery fish trap. This first group of salmon was composed principally of fish that had moved into the resting pool in July and August, and therefore were of the spring and summer run. These early fish do not tolerate confinement, but deteriorate rapidly, therefore, a deep pool of cool water has been provided adjacent to the ladder entrance. When the run ended on November 23, 4,840 fish had been trapped. There were 2,786 grilse; thus 79 percent were male, including grilse, and 21 percent were female.

Of the 1,002 females that entered the trap, 1,000 were spawned. These fish produced 3,332,000 eggs for an average of 3,322 eggs per female.

Marked King Salmon Returns

Between September 12, and November 23, a total of 70 grilse marked by the removal of the left maxillary was trapped. These fish had been marked and released from the hatchery in May, 1965. The average length was 18.74 inches. Also trapped, was a total of 50 grilse marked by the removal of the right maxillary. These fish had been released in October, 1965. The average length was 18.24 inches.

Planting the 1966 Brood Year Salmon

From February 28 to May 3, 1967, a total of 2,873,600 king salmon fingerlings were planted in the Trinity River near the hatchery.

SILVER SALMON MAINTENANCE PROGRAM

History of the 1966 Salmon Run

Between October 19 and December 27, 1966, 1,025 silver salmon were trapped. There were 45 large males, 173 females which were an aggregate of 136 two-year-old and 37 three-year-old fish, and 807 grilse. The 159 females that were spawned produced 314,170 eggs. On December 9, 1966, 783,400 silver salmon eggs were received from the Cascade Hatchery in Oregon.

Planting 1965 Brood Year Silver Salmon

Between April 3 and April 19, 1967, 614,700 silver salmon were planted in the Trinity River at Hawkins Bar. The average size was 15.6 per pound.

STEELHEAD MAINTENANCE PROGRAM

History of the 1966-67 Steelhead Run

Steelhead commenced entering the hatchery trap on September 12 and continued through April 27, 1967. A total of 135 fish was trapped. The 54 females that were spawned produced 207,400 eggs. This was the fewest steelhead eggs taken since spawning commenced in 1960.

Planting 1965 Brood Year Steelhead

As most of the 1965 brood year steelhead were slow growing, it was necessary to hold them to 18 to 24 months of age to attain the desired size of at least 10 fish per pound.

During November, 1966, a total of 559,743 yearling steelhead was released at the hatchery. Of this total, 100,000 fish (5.9/lb.) were marked by the removal of the adipose and the right maxillary. The average size of the total plant was 6.2 fish per pound.

During February, 1967, a total of 70,921 two-year-old steelhead was released at Lime Point, about 6 miles down river from Junction City, on the Trinity River. These fish were 5.3 per pound and marked by the removal of the adipose and the right ventral fin.

In April, 1967, a total of 97,679 two-year-old steelhead was released at Hawkins Bar, about 60 miles down river from the hatchery. These fish were 9.1 per pound and were marked by the removal of both the right and left ventral fins.

Planting 1966 Brood Year Steelhead

In April, 1967, a total of 12,503 yearling steelhead was marked by the removal of the left maxillary and released at Hawkins Bar. The size was 5.6 fish per pound.

In May, 1967, a total of 100,000 yearling steelhead was marked by the removal of the left ventral fin and released at Hawkins Bar. The size was 2.76 fish per ounce.

The balance of the 1966 brood year steelhead will be held until they are at least 10 fish per pound, or not over 24 months old.

STEELHEAD MARKING PROGRAM

In April of 1966, a steelhead marking program was commenced with the 1965 brood year steelhead. The purpose of the program is to determine returns derived from planting fish of one year old regardless of size, one year old at 10 fish per pound or better, fish 18 to 20 months old at 10 fish per pound or better, and fish held two full years.

BROWN TROUT MAINTENANCE PROGRAM

History of the 1966 Brown Trout Run

Between October 28 and December 27, 1966, 152 brown trout were trapped. Between October 31, 1966, and January 3, 1967, a total of 75,600 eggs were taken. On June 30, 1967, there were 50,100 brown trout fingerlings on hand.

Management of the 1965 Brood Year Trout

On June 30, 1967, there were 35,200 brown trout yearlings on hand. These fish are to be released in November, 1967, at Hawkins Bar, about 60 miles down the Trinity River from the hatchery.

APPENDIX

APPENDIX

Table A-1. Yearly Comparison of Fish Trapped at Lewiston. Compares the number of fish by species trapped at the Lewiston Fish Trapping Facilities and at the Trinity River Hatchery from July 1, 1961 through June 30, 1967.

Table A-2. Chart of Operation. Enumerates details of each activity.

Table A-3 through A-14. Weather, Water, and Fish Data Report. Summarizes daily air and water temperatures, weather condition, river flow, and number of fish by species trapped at the Trinity River Hatchery.

Figures A-1, A-2, and A-3 show weekly number of king salmon, silver salmon, and steelhead trout trapped.

TABLE A-1

Yearly Comparison of Fish Trapped at Lewiston
July 1, 1961 through June 30, 1967

Species	July 1, 1961 through June 30, 1962	July 1, 1962 through June 30, 1963	July 1, 1963 through June 30, 1964	July 1, 1964 through June 30, 1965	July 1, 1965 through June 30, 1966	July 1, 1966 through June 30, 1967
King salmon						
Male	885	1,308	1,571	1,974	477	1,052
Female	1,613	1,608	2,629	3,042	1,077	1,002
Total Adults	2,498	2,916	4,200	5,016	1,554	2,054
Grilse	2,899	6,535	2,540	1,287	1,521	2,786
Totals	5,397	9,451	6,740	6,303	3,075	4,840
Silver salmon						
Male	158	7	32	23	2	45
Female	160	--	40	25	1	173
Total Adults	318	7	72	48	3	218
Grilse	37	9	11	2	9	807
Totals	355	16	83	50	12	1,025
Steelhead trout						
Adults	3,243	1,687	894	6,941	992	135
Brown trout						
Adults	35	49	34	145	100	152

TABLE A-2

Chart of Operation
Trinity River Salmon and Steelhead Hatchery
1966-67

Species	Adult fish trapped	Females spawned	Eggs taken	Eggs received by transfer	Fingerlings planted	Yearlings planted	Total pounds planted	Fish on hand June 30, 1966	Fish on hand June 30, 1967
ing salmon									
Male	1,052								
Female	1,002								
Grilse	2,736								
Totals	4,840		1,000	3,332,000			2,873,600	2,568	
Silver salmon									
Male	45								
Female	173 ^{1/}								
Grilse	807								
Totals	1,025		159^{2/}	314,170	783,400^{3/}		614,700	39,160	706,500
Steelhead trout	135		54	207,400			840,848	128,383	2,554,150
Brown trout	152		42	75,600					1,029,885
Grand Totals	6,152		1,255	3,929,170	783,400	2,873,600	1,455,548	170,111	3,332,650
									1,950,485

^{1/} Aggregate of two- and three-year-old fish.

^{2/} 122 two-year-old fish, 37 three-year-old fish.
From Cascade Hatchery, Oregon.

TABLE A-3

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
July, 1966

Date	Temperature (degrees F.)				Weather	Flow of Trinity River, at Lewiston (c.f.s.)	King salmon		Silver salmon		Steelhead trout
	Air		Water				Adults	Grilse	Adults	Grilse	
	Maximum	Minimum	Maximum	Minimum							
1	79	49	50	49	Cloudy	157					
2	75	40	49	49	Clear	159					
3	92	41	49	47	Clear	159					
4	92	46	49	48	Clear	159					
5	95	49	50	48	Clear	159					
6	87	50	50	48	Clear	159					
7	78	47	51	50	Clear	159					
8	80	52	50	50	Clear	159					
9	77	50	49	48	Cloudy	159					
10	81	46	49	48	Clear	159					
11	83	47	50	48	Clear	159					
12	79	47	49	48	Clear	159					
13	82	47	49	49	Cloudy	159					
14	80	50	51	47	Clear	159					
15	84	48	51	47	Clear	159					
16	86	50	48	48	Clear	159					
17	92	47	50	47	Clear	159					
18	94	52	49	48	Clear	161					
19	95	50	49	48	Clear	161					
20	99	51	50	48	Clear	161					
21	104	52	50	49	Clear	159					
22	104	54	50	48	Clear	161					
23	101	51	49	49	Clear	159					
24	92	54	49	49	Clear	159					
25	96	50	50	49	Clear	159					
26	98	52	50	49	Clear	159					
27	100	53	50	48	Clear	159					
28	104	53	50	49	Clear	157					
29	106	54	50	49	Clear	160					
30	87	58	52	48	Cloudy	294					
31	96	52	50	48	Clear	202					

Totals

From U.S. Geological Survey records.

TABLE 1-4

**Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
August, 1966**

Date	Temperature (degrees F.)				Weather	Flow of Trinity River, at Lewiston (c.f.s.) ^{1/}	King salmon		Silver salmon		Steelhead trout
	Air Maximum	Air Minimum	Water Maximum	Water Minimum			Adults	Grilse	Adults	Grilse	
1	102	55	51	40	Clear	153					
2	104	59	50	49	Clear	155					
3	105	58	49	48	Clear	153					
4	100	54	50	48	Clear	153					
5	102	54	50	48	Clear	153					
6	102	54	50	49	Clear	150					
7	104	51	50	48	Clear	152					
8	100	51	50	49	Clear	153					
9	104	54	50	48	Clear	155					
10	105	57	50	49	Clear	153					
11	97	57	50	49	Clear	153					
12	102	54	50	48	Clear	153					
13	100	56	54	49	Clear	150					
14	101	55	51	48	Clear	153					
15	105	56	50	48	Clear	153					
16	99	57	50	49	Cloudy	153					
17	102	57	49	49	Cloudy	153					
18	99	58	51	48	Clear	153					
19	99	54	50	47	Clear	150					
20	100	54	51	48	Clear	150					
21	99	53	50	48	Cloudy	150					
22	93	53	50	48	Clear	150					
23	89	52	50	48	Clear	153					
24	88	44	50	48	Clear	148					
25	85	46	48	48	Clear	148					
26	85	46	49	48	Clear	148					
27	88	48	50	48	Clear	148					
28	86	48	48	48	Cloudy	148					
29	74	45	48	48	Clear	150					
30	65	50	49	48	Rain	148	--	--	--	--	--
31	87	45	48	47	Clear	150	--	--	--	--	--

Total:

From U. S. Geological Survey records.

TABLE A-5

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report

September, 1966

Date	Temperature (degrees F.)				Weather	Flow of Trinity River, at Lewiston (c.f.s.) ^{1/}	Fish trapped				
	Air		Water				King salmon	Silver salmon	Steelhead		
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse	trout
1	93	46	50	43	Clear	150					
2	98	46	50	47	Clear	148					
3	101	49	50	47	Clear	148					
4	104	50	49	47	Clear	148					
5	100	51	48	47	Clear	150					
6	98	48	50	47	Clear	150					
7	95	47	49	47	Clear	150					
8	88	44	49	47	Clear	148					
9	92	42	48	47	Clear	148					
10	86	45	49	47	Clear	144					
11	75	48	40	47	Clear	148					
12	74	37	49	47	Cloudy	148					
13	70	44	49	48	Cloudy	153					
14	79	39	50	48	Clear	153					
15	86	43	49	47	Clear	150					
16	86	42	50	48	Clear	148					
17	88	47	50	49	Rain	148					
18	74	53	50	49	Rain	148					
19	86	50	50	49	Clear	148					
20	84	55	50	50	Cloudy	148					
21	93	52	50	50	Clear	150					
22	80	50	52	50	Clear	150					
23	87	45	52	51	Clear	150					
24	84	47	50	49	Clear	153					
25	83	47	49	49	Clear	153					
26	82	50	52	49	Clear	150					
27	90	43	52	47	Clear	153					
28	99	45	52	47	Clear	150					
29	101	46	53	47	Clear	150					
30	98	50	50	49	Clear	172					
Total							210	201	--	--	4

^{1/} From U. S. Geological Survey records.

TABLE A-6

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
October, 1966

Date	Temperature (degree F.)				Weather	Flow of Trinity River at Lewiston (c.f.s.) ^{1/}	Fish trapped				
	Air		Water				King salmon	Silver salmon	Steelhead		
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse	trout
1	89	48	51	50	Clear	210					
2	82	46	51	50	Clear	210					
3	86	43	51	50	Clear	208		66	75		
4	89	40	51	50	Clear	208		28	19		
5	85	41	51	50	Clear	208		18	9		
6	85	43	50	49	Clear	208		19	6		
7	83	51	50	49	Clear	208		20	18		
8	87	42	49	48	Clear	208					
9	89	40	49	48	Clear	208					
10	89	40	50	49	Clear	208		161	66		
11	75	42	49	49	Cloudy	208		75	48		
12	65	40	48	48	Clear	208		130	58		
13	65	29	47	47	Clear	208		38	27		
14	74	26	47	47	Clear	208		17	21		
15	70	28	47	46	Clear	208					
16	74	28	46	44	Clear	208					
17	79	28	47	46	Clear	205		168	125		
18	80	29	47	46	Clear	205		60	80		
19	64	32	46	46	Cloudy	208		105	112	1	
20	64	40	46	46	Cloudy	208		49	39		
21	63	32	46	45	Clear	202		43	44		
22	63	38	46	45	Clear	202					
23	82	45	47	46	Clear	210					
24	83	40	48	46	Clear	262		308	429	5	1
25	78	38	48	47	Clear	262		39	129	5	
26	77	41	48	48	Clear	259		93	174	1	1
27	71	35	49	47	Clear	262		66	154	1	
28	76	33	48	47	Clear	259		27	130	1	5
29	78	36	48	48	Clear	256					
30	80	36	47	46	Clear	256					
31	84	36	48	47	Clear	259		126	246	1	14
Totals							1,656	2,009	4	31	2

^{1/} From U. S. Geological Survey records.

TABLE A-7

**Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
November, 1966**

Date	Temperature (degrees F.)				Weather	Flow of Trinity River at Lewiston (c.f.s.) ^{1/}	Fish trapped					
	Air		Water				King salmon		Silver salmon		Steelhead trout	
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse		
1	85	35	47	46	Clear	259	21	77	1	12		
2	78	33	46	46	Clear	266	25	54		2		2
3	78	34	47	46	Clear	266	42	113		7		
4	78	31	46	46	Clear	266	18	60		7		
5	62	34	45	45	Cloudy	266						
6	50	42	45	45	Cloudy	266						
7	60	40	45	45	Clear	262		34	122	1	13	
8	59	33	45	45	Clear	259						
9	54	29	45	45	Cloudy	262						
10	58	35	45	45	Cloudy	262		17	61	2	29	
11	48	44	45	45	Cloudy	262						
12	55	46	45	45	Rain	262						
13	52	50	45	45	Rain	262						
14	54	50	45	45	Rain	259		23	56	8	106	
15	60	49	45	45	Rain	266						
16	58	41	46	45	Cloudy	262		3	13	27	167	1
17	56	42	45	45	Cloudy	262						
18	54	52	46	46	Rain	262		3	10	19	125	1
19	54	52	46	45	Rain	262						
20	54	51	46	45	Rain	262						
21	42	39	46	45	Rain	262		2	8	29	76	2
22	42	32	45	45	Rain	259						
23	49	33	45	45	Cloudy	259		2	23	47	2	
24	48	33	44	44	Clear	259						
25	44	32	44	44	Cloudy	259						
26	50	38	44	44	Cloudy	262						
27	51	38	45	44	Cloudy	262						
28	46	44	46	45	Rain	259			16	38		
29	52	45	45	45	Cloudy	259						
30	54	46	45	45	Cloudy	259						
Totals							183	576	126	629	8	

^{1/} From U. S. Geological Survey records.

TABLE A-6

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
December, 1966

Date	Temperature (degrees F.)				Weather	Flow of Trinity River at Lewiston (c.f.s.) ^{1/}	Fish trapped			
	Air		Water				King salmon Adults	King salmon Grilse	Silver salmon Adults	Silver salmon Grilse
	Maximum	Minimum	Maximum	Minimum						
1	47	35	44	44	Clear	227				
2	46	35	45	44	Clear	215			36	52
3	50	36	45	44	Cloudy	212				
4	49	39	45	44	Cloudy	215				
5	55	45	45	45	Clear	218			30	42
6	58	42	45	45	Clear	215				
7	58	42	46	45	Clear	215				
8	47	41	46	46	Clear	212				
9	52	40	46	46	Clear	212			12	28
10	50	36	46	46	Clear	215				1
11	43	35	46	45	Rain	215				
12	49	39	46	45	Cloudy	212			11	13
13	47	33	46	46	Clear	212				
14	45	27	45	45	Clear	215				
15	45	19	45	45	Clear	215				
16	43	18	45	44	Clear	215				
17	44	19	44	43	Clear	215				
18	46	19	43	42	Clear	218				7
19	46	19	43	42	Clear	215				
20	46	19	43	42	Clear	215				
21	46	19	42	42	Clear	215				
22	46	17	42	41	Clear	218				
23	43	20	41	41	Clear	213				
24	37	31	41	41	Snow	218				
25	42	30	41	41	Snow	218				
26	38	24	41	40	Cloudy	218				
27	45	28	40	40	Snow	218				4
28	43	38	41	40	Rain	218				
29	40	32	41	41	Rain	218				
30	39	28	41	41	Snow	218				
31	41	19	41	41	Cloudy	221				
Total							--	--	89	146
										2

^{1/} From U. S. Geological Survey records.

TABLE A-9
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 January, 1967

Date	Temperature (degree F.)					Weather	Flow of Trinity River at Lewiston (c.f.s.) ^{1/}	Fish trapped							
	Air		Water					King salmon Adults	Silver salmon Grilse	Steelhead					
	Maximum	Minimum	Maximum	Minimum						Adults	Grilse	Adults	Grilse		
1	55	31	43	43	Clear	259									
2	49	28	43	42	Clear	266									
3	46	30	42	42	Cloudy	266									
4	47	30	43	42	Cloudy	266									
5	45	33	43	42	Cloudy	266									
6	47	23	43	42	Clear	266									
7	38	32	42	42	Cloudy	262									
8	40	28	42	42	Clear	259									
9	52	30	43	42	Cloudy	262									
10	49	32	43	42	Cloudy	262									
11	53	35	43	43	Cloudy	262									
12	49	34	43	43	Clear	262									
13	53	34	44	43	Clear	262									
14	47	38	44	44	Clear	259									
15	50	36	44	44	Clear	266									
16	49	34	44	44	Clear	262									
17	52	26	45	44	Clear	262									
18	54	28	45	44	Clear	262									
19	41	27	45	44	Cloudy	262									
20	33	32	44	44	Snow	262									
21	40	33	44	44	Rain	262									
22	46	26	43	43	Clear	259									
23	43	27	43	43	Cloudy	259							3		
24	41	33	43	42	Snow	259									
25	41	30	43	42	Snow	259									
26	36	33	42	42	Snow	262									
27	37	34	42	42	Rain	262									
28	39	35	43	42	Rain	259									
29	56	35	43	43	Clear	259									
30	44	31	43	43	Rain	259									
31	54	35	43	43	Clear	--							3		
Totals															

^{1/} From U. S. Geological Survey records.

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Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
February, 1967

Date	Temperature (degrees F.)				Weather	Flow of Trinity River at Lewiston (c.f.s.) ^{1/}	Fish trapped			
	Air		Water				King salmon	Silver salmon	Steelhead	
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse
1	52	35	44	43	Clear	161				
2	50	35	44	44	Clear	161				
3	54	33	44	44	Clear	161				13
4	56	33	44	44	Clear	161				
5	57	32	44	44	Clear	164				
6	60	31	46	45	Clear	164				
7	60	32	46	45	Clear	164				
8	58	32	46	45	Clear	164				13
9	63	33	46	45	Clear	164				
10	64	35	46	45	Clear	164				
11	65	31	46	45	Clear	164				
12	68	36	47	45	Clear	164				
13	49	34	46	45	Cloudy	166				
14	49	27	46	45	Clear	166				
15	40	30	45	45	Snow	164				
16	44	33	46	46	Cloudy	161				7
17	63	36	46	45	Clear	161				
18	62	35	46	45	Clear	159				
19	56	28	46	45	Clear	159				
20	66	25	46	46	Clear	159				
21	66	22	46	45	Clear	161				
22	60	26	46	46	Clear	161				
23	66	29	46	45	Clear	161				5
24	54	38	46	45	Rain	164				
25	57	38	46	45	Cloudy	161				
26	62	35	47	45	Cloudy	161				
27	61	33	47	46	Cloudy	164				
28	65	35	47	46	Cloudy	164				
Totals										30

^{1/} From U. S. Geological Survey records.

TABLE A-11
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 March, 1967

Date	Temperature ¹ (degrees F.)				Weather	Flow of Trinity River at Lewiston (c.f.s.) ¹	Fish trapped			
	Air		Water				King salmon Adults	Silver salmon.. Grilse	Steelhead Adults	Steelhead Grilse
	Maximum	Minimum	Maximum	Minimum						
1	60	37	46	46	Cloudy	166				
2	60	31	46	46	Clear	164				9
3	53	32	46	46	Clear	164				
4	61	22	46	46	Clear	164				
5	70	25	47	46	Clear	164				
6	74	28	47	46	Clear	164				7
7	75	28	47	46	Clear	164				
8	74	28	47	46	Clear	164				6
9	54	30	47	46	Cloudy	164				4
10	42	30	47	47	Rain	166				
11	38	28	46	46	Rain	166				
12	40	38	47	46	Cloudy	168				6
13	43	30	46	46	Rain	166				3
14	40	31	46	46	Rain	164				
15	47	34	45	45	Rain	166				4
16	58	43	45	45	Cloudy	166				1
17	56	35	46	46	Rain	166				
18	55	37	45	45	Cloudy	164				
19	44	31	47	46	Cloudy	164				8
20	46	38	46	46	Rain	164				
21	62	43	48	46	Cloudy	161				
22	59	46	48	47	Cloudy	161				4
23	50	43	46	46	Cloudy	161				
24	56	31	47	47	Clear	161				
25	50	30	47	46	Cloudy	161				
26	62	30	48	46	Clear	161				4
27	61	31	48	47	Cloudy	161				
28	46	40	47	47	Snow	161				
29	54	28	46	46	Cloudy	161				
30	43	32	46	46	Snow	164				
31	41	32	46	46	Snow	164				
Total:										
¹ From U. S. Geological Survey records.										

Totals

¹ From U. S. Geological Survey records.

TABLE A-12
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 April, 1967

Date	Temperatures (degrees F.)				Weather	Flow of Trinity River, at Lewiston (c.f.c.) ^{1/}	Fish trapped			
	Air		Water				King salmon Adults	Grilse	Silver salmon Adults	Grilse
	Maximum	Minimum	Maximum	Minimum						
1	52	32	46	46	Cloudy	164				
2	60	33	46	45	Cloudy	164				
3	55	36	47	45	Rain	164				8
4	59	38	47	46	Cloudy	164				
5	49	37	47	46	Rain	166				
6	42	30	47	46	Rain	168				3
7	57	38	47	46	Cloudy	168				
8	56	37	47	47	Cloudy	168				
9	54	36	48	47	Cloudy	168				
10	46	36	48	47	Snow	170				2
11	54	33	48	47	Cloudy	166				
12	64	34	48	47	Clear	168				
13	50	33	47	47	Rain	168				3
14	51	52	47	47	Rain	168				
15	53	33	47	47	Clear	168				
16	48	30	48	47	Cloudy	166				
17	45	36	47	47	Rain	168				3
18	44	31	47	47	Snow	166				
19	45	34	47	47	Snow	168				
20	47	34	47	46	Rain	168				1
21	55	30	47	47	Cloudy	164				
22	48	37	47	46	Rain	168				
23	51	39	47	47	Rain	168				
24	57	39	48	47	Rain	168				
25	55	36	48	47	Cloudy	168				
26	43	33	48	47	Rain	166				
27	52	33	48	47	Cloudy	166				1
28	56	28	48	47	Cloudy	166				
29	57	31	47	47	Cloudy	168				
30	60	30	48	47	Cloudy	168				
Totals							--	--	--	21

^{1/}From U. S. Geological Survey records.

TABLE A-13
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 May, 1967

Date	Temperature (degrees F.)				Weather	Flow of Trinity River at Leviston (c.f.s.) ^{1/}	Fish trapped			
	Air		Water				King salmon	Silver salmon	Steelhead	
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse
1	67	32	48	47	Clear	166				
2	72	32	49	47	Clear	161				
3	72	34	50	49	Clear	164				
4	76	36	51	50	Clear	164				
5	65	43	51	51	Clear	166				
6	80	44	51	51	Clear	166				
7	90	42	52	51	Clear	166				
8	80	49	55	54	Clear	134				
9	59	42	54	51	Rain	136				
10	54	39	53	53	Rain	155				
11	51	38	52	51	Rain	155				
12	67	35	53	52	Clear	153				
13	78	33	53	53	Clear	150				
14	86	38	55	54	Clear	150				
15	92	44	56	54	Clear	148				
16	93	47	57	55	Clear	159				
17	93	49	57	55	Clear	175				
18	92	45	56	55	Clear	170				
19	95	46	55	54	Clear	170				
20	98	50	55	54	Clear	170				
21	99	52	54	54	Clear	170				
22	98	51	55	55	Clear	230				
23	92	48	54	53	Clear	331				
24	83	44	52	51	Clear	844				
25	88	41	51	51	Clear	1,360				
26	84	42	52	52	Clear	1,680				
27	84	41	53	52	Clear	2,030				
28	75	51	52	52	Cloudy	2,180				
29	72	40	52	51	Clear	2,350				
30	66	39	52	51	Clear	2,620				
31	64	37	52	51	Clear	2,430				
Totals										

^{1/} From U. S. Geological Survey records.

TABLE A-14
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 June, 1967

Date	Temperatures (degrees F.)				Weather	Flow of Trinity River/ at Lewiston (c.f.s.) ^{1/}	Fish trapped				
	Air Maximum	Air Minimum	Water Maximum	Water Minimum			King salmon Adults	King salmon Grilse	Silver salmon Adults	Silver salmon Grilse	Steelhead trout
1	50	37	51	50	Rain	2,380					
2	61	45	50	50	Rain	2,150					
3	80	44	51	50	Clear	1,880					
4	84	44	52	51	Clear	1,660					
5	64	49	52	52	Fog	1,320					
6	73	51	52	52	Fog	1,500					
7	80	50	52	51	Clear	1,620					
8	83	44	52	52	Clear	1,620					
9	82	57	53	52	Clear	1,620					
10	84	46	52	52	Clear	1,620					
11	82	50	53	52	Clear	1,620					
12	77	48	53	53	Clear	1,620					
13	83	44	53	52	Clear	1,620					
14	87	47	56	53	Clear	1,620					
15	93	47	55	55	Clear	1,620					
16	95	50	55	54	Clear	1,620					
17	100	52	56	55	Clear	1,620					
18	102	55	57	56	Clear	1,620					
19	96	60	58	58	Cloudy	1,620					
20	86	58	58	57	Clear	1,760					
21	88	48	57	57	Clear	1,910					
22	83	48	57	57	Clear	1,910					
23	88	49	57	56	Clear	1,730					
24	98	48	56	56	Clear	1,390					
25	98	53	57	56	Clear	1,140					
26	91	57	58	57	Clear	932					
27	96	53	58	56	Clear	820					
28	100	53	56	56	Clear	644					
29	103	56	58	56	Clear	480					
30	107	62	57	56	Clear	404					
Totals							--	--	--	--	--
GRAND TOTALS							2,054	2,786	219	806	135

^{1/} From U. S. Geological Survey records.

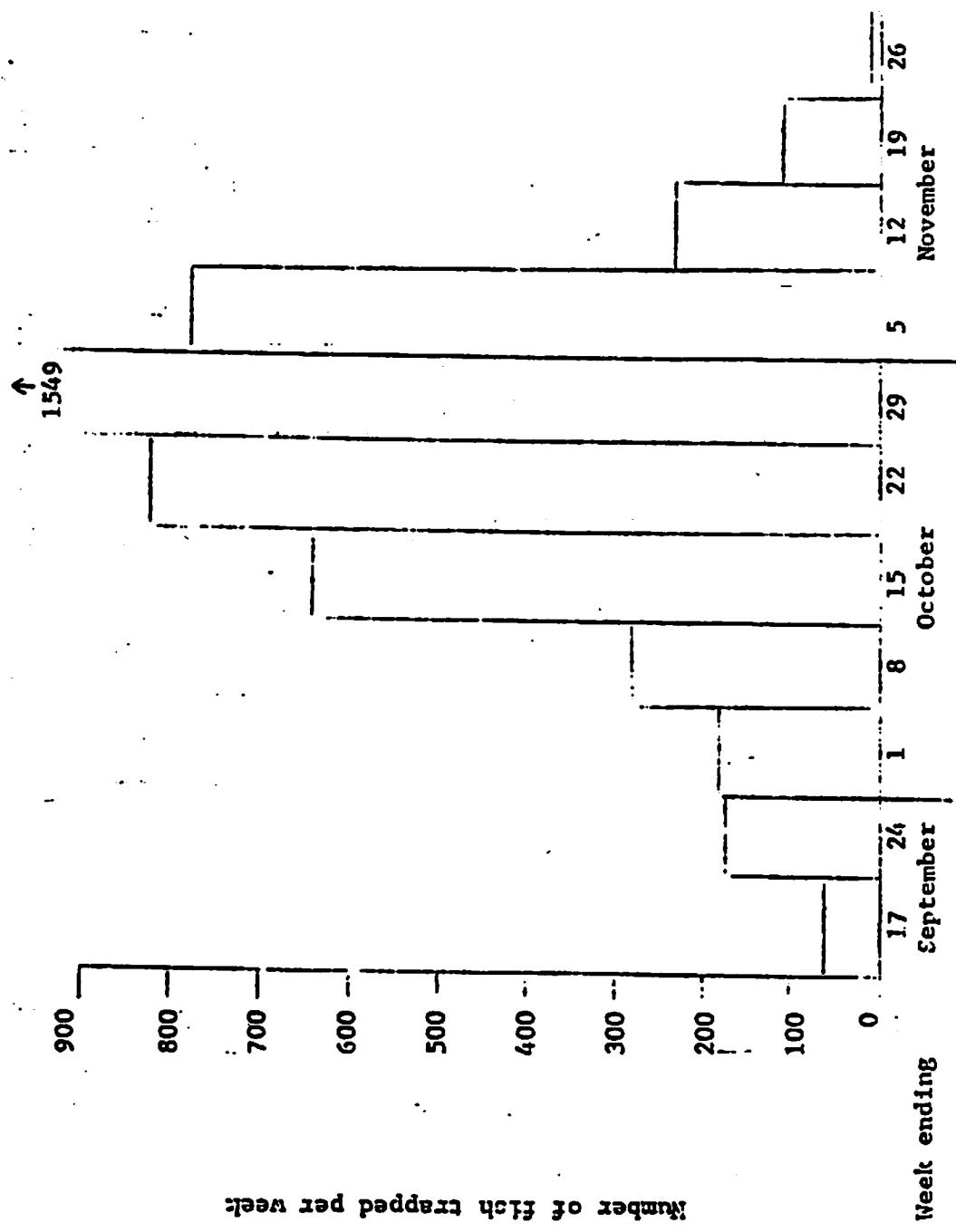


FIGURE A-1. King salmon trapped at Trinity River Fish Hatchery.
Weekly fish count September 12, 1966 to November 23,
1966.

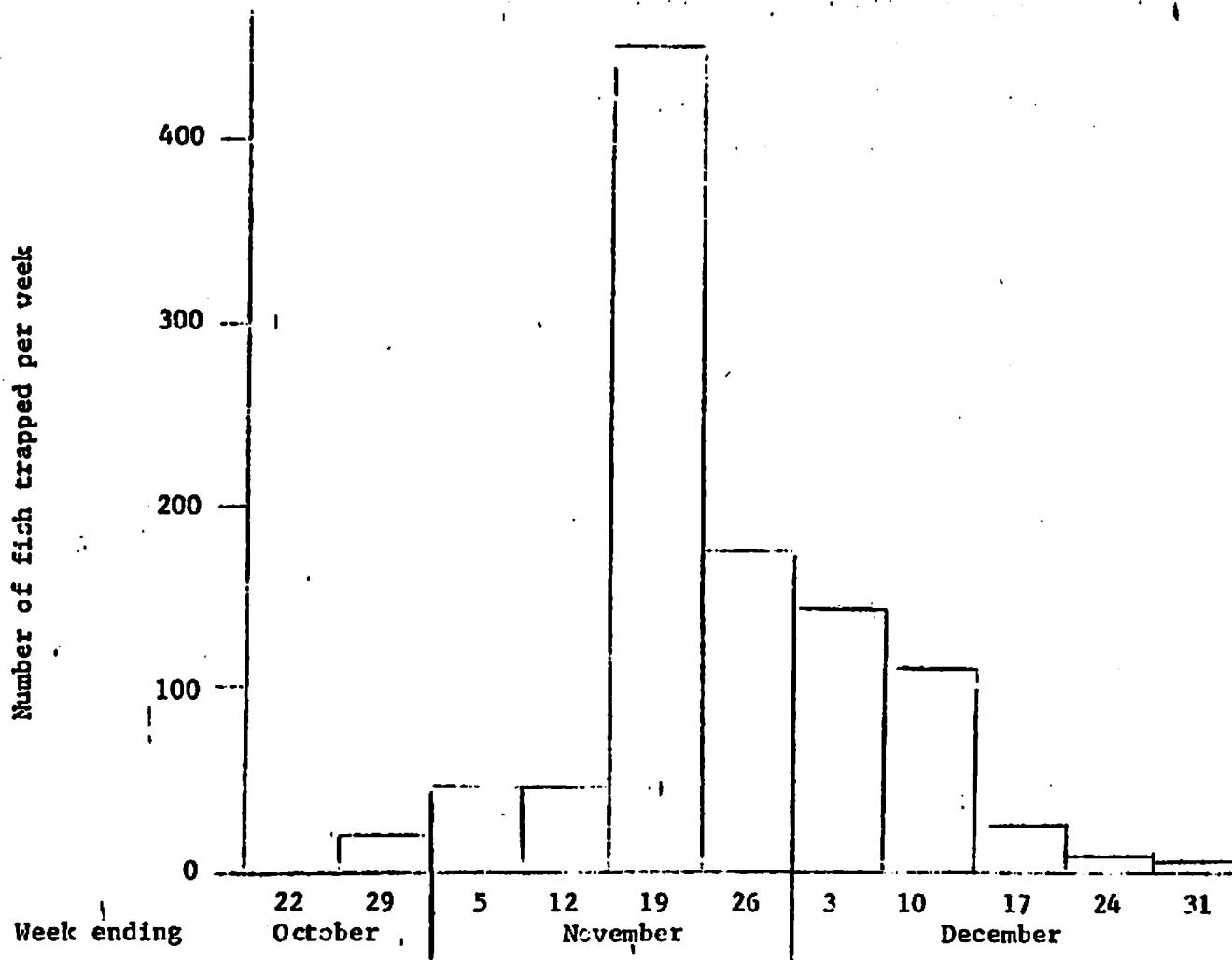


FIGURE A-2. Silver salmon trapped at Trinity River Fish Hatchery.
Weekly fish count October 19, 1966 to December 27, 1966.

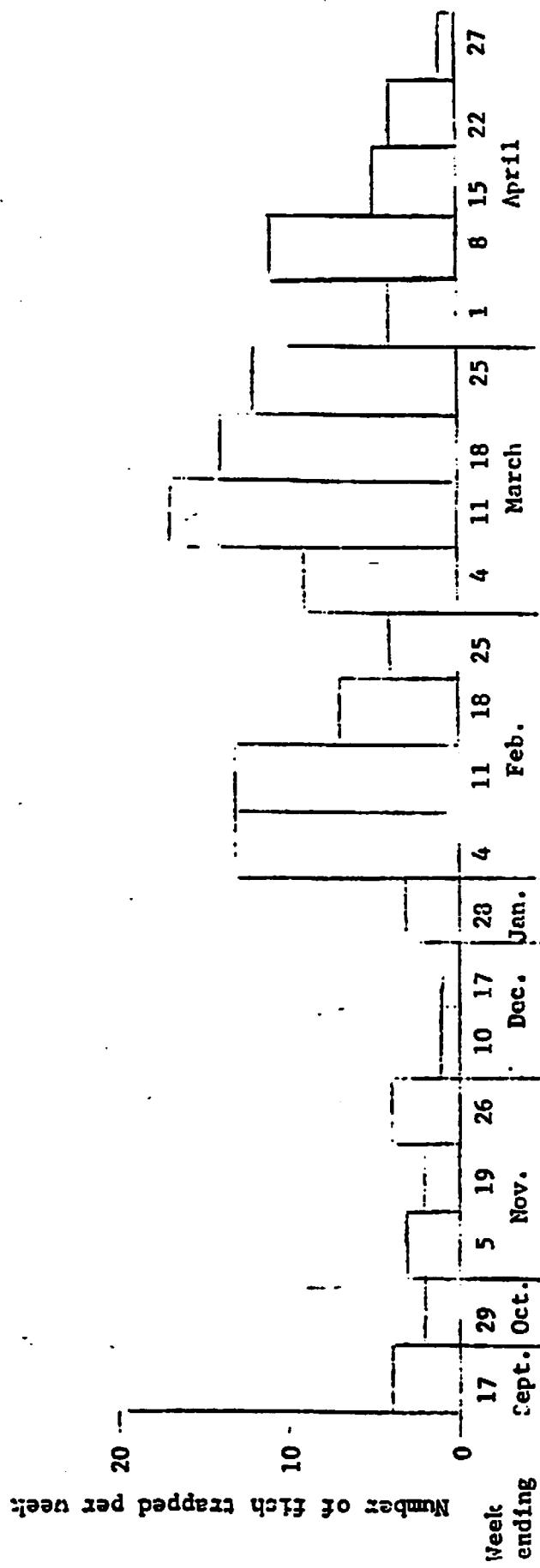


FIGURE A-3. Steelhead trout trapped at Trinity River Fish Hatchery.
Weekly fish count September 12, 1966 to April 27, 1967.