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ANNUAL REPORT
TRINITY RIVER SALMON AND STEELHEAD HATCHERY
TENTH YEAR OF OPERATION 1967-68^{1/}

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SUMMARY

King salmon, Oncorhynchus tshawytscha, started entering the hatchery on September 6, 1967. The run ended November 24. Silver salmon, Oncorhynchus kisutch, started entering the hatchery on October 18, 1967. The run ended January 17, 1968. Steelhead trout, Salmo gairdnerii gairdnerii, began entering the hatchery on September 6, 1967, and continued through April 26, 1968. A few brown trout, Salmo trutta, entered the hatchery from September 6, to December 20, 1967.

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, 1968
King salmon	2,870	1,164	3,758,050	2,109,400	52,185	9,556	535,000
Silver salmon	806	511	1,411,500	265,000	684,265	56,335	870,000
Steelhead trout	232	53	160,900		676,342	99,241	385,000
Brown trout	231	62	158,700		31,124	4,460	37,000

INTRODUCTION

This is the tenth 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, 1967, through June 30, 1968, is described in this report.

KING SALMON MAINTENANCE PROGRAM

History of the 1967 Salmon Run

The first king salmon of the 1967 run began to enter the hatchery on September 6, when the ladder was opened to allow the salmon to move from the resting pool to the hatchery fish trap. This first group of salmon was composed principally of spring and summer fish that had moved into the resting pool in June and July. 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 24, 4,616 fish had been trapped. Of this total, 73% were male, including grilse, and 27% were female. Of the 1,250 females that entered the trap, 1,164 were spawned. These fish produced 3,758,050 eggs for an average of 3,229 eggs per female.

Marked King Salmon Returns

A total of 488 marked fish were trapped. Of these, 137 were marked LM (released May 25, 1965), 299 marked RM (released October 29, 1965), and 2 marked RP (released May 1964). The fish released in May as fingerlings produced larger fish. Their average length was 28.25 inches compared to 26.3 inches for fish released as yearlings in November.

Planting 1966 Brood-Year Salmon

On March 19, 1968, a total of 52,135 king salmon yearlings were marked AD and released at the hatchery. These were the last of this year class.

Planting 1967 Brood-Year Salmon

On May 13, 1968, a total of 2,109,400 king salmon fingerlings were released in the Trinity River at the hatchery. About 500,000, 1967 brood-year king salmon are being held over for release in March of 1969.

SILVER SALMON MAINTENANCE PROGRAM

History of the 1967 Salmon Run

Between October 13, 1967, and January 17, 1968, 865 silver salmon were trapped. There were 287 large males and 519 females. Including grilse, the run was composed of 63% females and 37% males. This is the largest run of large silver salmon to appear at the hatchery since it has been in operation. The 511 females spawned produced 1,411,500 eggs.

Planting 1966 Brood-Year Silver Salmon

Between April 1, and April 27, 1963, a total of 684,265 silver salmon yearlings were released in the Trinity River at Hawkins Bar.

Planting 1967 Brood-Year Silver Salmon

On June 18, 1968, a total of 72,000 silver salmon fingerlings were planted at Denny in New River, a tributary to the Trinity River. On June 19, a total of 193,000 silver salmon fingerlings were planted in the Trinity River below the old bridge at Lewiston.

A total of 300,000, 1967 brood-year silver salmon are being held for release in April of 1969.

STEELHEAD MAINTENANCE PROGRAM

History of the 1967-68 Steelhead Run

Steelhead commenced entering the hatchery trap on September 6, 1967, and continued through April 26, 1968. A total of 232 fish were trapped. The 53 females that were spawned produced 160,900 eggs.

Marked Steelhead Returns

From February 19, to April 4, 1968, a total of 72 marked steelhead were taken. Of this total, there were 25 marked AD-LV (1965 brood year, released at the hatchery during April 1966), 28 marked AD-LM (1965 brood year, released at the hatchery during April 1966), 18 marked AD-RM (1965 brood year, released at the hatchery during November 1965).

Scale examination indicated that none of these marked fish had entered the ocean. Eggs from the marked females were small and amber-colored.

Planting 1966 Brood-Year Steelhead

The 1966 brood-year steelhead were held well into their second year because they were too small to plant earlier. Commencing in November 1967, and continuing into April 1968, a total of 645,571 steelhead were released in the Trinity River at Hawkins Bar. Of this total, 50,100 fish were marked RM and 24,960, were marked LV-RM and released in November 1967. In March 1968, 27,057 fish marked RV and 50,063, marked RV-LM were released. In April 1968, 100,000 fish marked AD were released.

The average size of the 1966 brood-year fish was 6.9 fish per pound.

Planting 1967 Brood-Year Steelhead

The 1967 brood-year steelhead were raised on Oregon moist pellets. As a result, a very high percentage of these fish reached a size of 6 fish per pound at one year of age.

In April 1968, a total of 30,771 fish were marked LV-LM and released in the Trinity River at Hawkins Bar.

BROWN TROUT MAINTENANCE PROGRAM

History of the 1967 Brown Trout Run

Between September 6, and December 28, 1967, 231 brown trout were trapped. Between October 19, and November 15, 1967, a total of 158,700 eggs were taken. The fry did not survive as they never commenced to feed. The entire 1967 brown trout brood year was a complete loss.

Planting 1965 Brood-Year Brown Trout

Between November 27, and December 12, 1967, a total of 31,124 brown trout were released in the Trinity River at Hawkins Bar. The average size was 7 fish per pound.

MEMO

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, 1962, through June 30, 1968.

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

TABLES 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 through A-3 Show weekly number of king salmon, silver salmon, and steelhead trout trapped.

TABLE A-1

Yearly Comparison of Fish Trapped at Lewiston
Trinity River Salmon and Steelhead Hatchery
July 1, 1962, through June 30, 1963

Species	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	July 1, 1967 through June 30, 1968
King salmon						
Male	1,308	1,571	1,974	477	1,052	1,620
Female	1,608	2,629	3,042	1,077	1,002	1,250
Total adults	2,916	4,200	5,016	1,554	2,054	2,870
Grilse	6,535	2,540	1,287	1,521	2,786	1,746
Totals	9,451	6,740	6,303	3,075	4,840	4,616
Silver salmon						
Male	7	32	23	2	45	287
Female	--	40	25	1	173	518
Total adults	7	72	48	3	218	806
Grilse	9	11	2	9	807	59
Totals	16	83	50	12	1,025	865
Steelhead trout						
Adults	1,687	894	6,941	992	135	232
Brown trout						
Adults	49	34	145	100	152	231

TITLE A-2
 Chart of Operation
 Trinity River Salmon and Steelhead Hatchery
 1967-68

Species	Adult fish trapped	Females spawned	Eggs taken	Eggs received by transfer	Fingerlings planted	Yearlings planted	Total pounds planted	Fish on hand June 30, 1967	Fish on hand June 30, 1968
King salmon									
Male	1,620								
Female	1,250								
Grilse	1,746								
Totals	4,616	1,164	3,758,050		2,109,400	52,185	9,556	54,300	535,000
Silver salmon									
Male	287								
Female	519								
Grilse	59								
Totals	865	511	1,411,500		265,000	684,265	56,335	781,000	870,000
Steelhead trout	232	53	160,900	147,276^{1/}		676,342	99,241	1,029,885	385,000
Brown trout	231	62	158,700			31,124	4,460	85,300	37,000
GRAND TOTALS	5,944	1,790	5,439,150	147,276	2,374,400	1,443,916	169,592	1,950,435	1,827,000

^{1/} From Iron Gate Hatchery.

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

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped		
	Air Maximum	Air Minimum	Water Maximum	Water Minimum			King salmon Adults	King salmon Grilse	Silver salmon Adults
1	102	60	57	55	Clear	216			
2	105	60	57	55	Clear	150			
3	95	61	55	54	Clear	150			
4	98	58	55	54	Clear	148			
5	96	57	55	53	Clear	150			
6	96	52	54	51	Clear	150			
7	90	59	53	51	Clear	150			
8	94	50	53	52	Clear	150			
9	95	50	52	50	Clear	150			
10	97	54	52	51	Clear	150			
11	103	56	54	51	Clear	150			
12	101	57	55	53	Clear	150			
13	100	56	54	51	Clear	148			
14	101	54	54	51	Clear	148			
15	104	58	53	50	Clear	143			
16	98	60	53	50	Rain	150			
17	94	59	52	51	Clear	155			
18	90	43	51	50	Clear	153			
19	91	49	51	50	Clear	155			
20	94	52	51	50	Clear	153			
21	97	53	51	50	Clear	153			
22	92	56	52	50	Clear	153			
23	92	53	52	51	Clear	153			
24	100	51	52	51	Clear	153			
25	96	51	50	50	Clear	153			
26	100	49	51	50	Clear	155			
27	100	51	51	49	Clear	153			
28	92	60	50	49	Cloudy	155			
29	99	59	51	50	Clear	301			
30	101	56	51	50	Clear	190			
31	100	53	51	49	Clear	146			

Totals

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

TABLE A 4
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 August 1967

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped		
	Air Maximum	Air Minimum	Water Maximum	Water Minimum			King salmon Adults	King salmon Grilse	Silver salmon Adults
1	100	53	52	50	Clear	146			
2	101	54	52	50	Clear	148			
3	102	54	51	50	Clear	150			
4	98	54	51	50	Clear	153			
5	96	52	51	50	Clear	150			
6	91	51	50	49	Clear	148			
7	94	50	51	50	Clear	148			
8	98	48	51	50	Clear	150			
9	97	54	52	50	Clear	150			
10	94	53	52	50	Clear	153			
11	97	51	52	50	Clear	153			
12	98	52	56	48	Clear	150			
13	99	52	55	49	Clear	150			
14	105	53	52	50	Clear	150			
15	104	55	52	50	Clear	150			
16	100	56	51	50	Clear	155			
17	105	54	52	50	Clear	153			
18	106	55	52	51	Clear	150			
19	104	58	52	49	Clear	150			
20	106	54	52	50	Clear	150			
21	103	54	51	50	Clear	153			
22	106	55	51	50	Clear	155			
23	102	58	51	50	Clear	153			
24	97	60	53	50	Clear	155			
25	100	62	51	49	Cloudy	153			
26	92	64	50	49	Rain	150			
27	96	63	50	49	Cloudy	148			
28	91	56	51	49	Clear	148			
29	99	49	52	48	Clear	148			
30	101	48	51	49	Clear	150			
31	94	51	50	49	Clear	153			
Totals						--	--	--	--

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

TABLE A-5

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

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped			
	Air		Water				King salmon Adults	King salmon Grilse	Silver salmon Adults	Silver salmon Grilse
	Maximum	Minimum	Maximum	Minimum						
1	91	49	50	48	Clear	160				
2	98	47	50	49	Clear	160				
3	92	55	49	48	Clear	159				
4	93	51	50	49	Clear	159				
5	90	53	50	49	Clear	160				
6	95	52	50	48	Clear	160				
7	89	51	50	49	Clear	160				
8	84	47	50	48	Clear	159				
9	90	48	51	48	Clear	159				
10	82	48	50	48	Cloudy	160				
11	85	52	49	49	Clear	160				
12	93	44	50	48	Clear	160				
13	95	43	50	49	Clear	160				
14	94	43	49	48	Clear	162				
15	92	42	51	48	Clear	160				
16	90	55	50	48	Clear	160				
17	67	54	49	48	Rain	160				
18	87	53	49	48	Rain	158				
19	96	47	50	47	Clear	159				
20	100	49	50	49	Clear	160				
21	100	51	49	49	Clear	160				
22	93	50	50	49	Clear	160				
23	86	54	50	48	Clear	160				
24	96	52	51	48	Clear	160				
25	96	46	49	48	Clear	159				
26	100	45	49	48	Clear	159				
27	100	47	50	48	Clear	160				
28	100	50	50	49	Clear	160				
29	83	52	50	48	Cloudy	161				
30	75	58	49	47	Cloudy	160				
Totals							1,133	239	--	2

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

TABLE A-6
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 October 1967

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped				
	Air		Water				King salmon Adults	King salmon Grilse	Silver salmon Adults	Silver salmon Grilse	Steelhead trout
	Maximum	Minimum	Maximum	Minimum							
1	73	53	48	48	Cloudy	161					
2	58	46	48	48	Rain	166		93	32		
3	67	40	43	47	Cloudy	188		65	21		2
4	66	44	43	47	Cloudy	210					
5	66	46	48	48	Cloudy	210		124	31		
6	71	41	48	47	Cloudy	210		20	14		
7	81	40	49	48	Clear	210					
8	79	41	48	48	Cloudy	212					
9	80	43	48	48	Clear	212		135	50		
10	80	45	48	48	Clear	212		45	23		
11	77	49	48	48	Clear	212					
12	75	44	43	48	Clear	212		111	48		
13	77	41	48	48	Clear	212		124	53		
14	77	36	48	47	Clear	212					
15	79	32	48	47	Clear	195					
16	80	34	48	47	Clear	205		132	60		
17	80	36	48	47	Clear	205		32	40		1
18	80	36	48	47	Clear	205		34	35	1	
19	78	41	48	47	Clear	202		39	33		
20	78	40	48	47	Clear	202		35	33		
21	54	41	47	47	Rain	202					
22	72	50	48	47	Cloudy	202					
23	72	46	48	47	Clear	205		221	207	1	
24	73	42	40	47	Clear	205		43	59	1	
25	73	46	48	47	Clear	205		70	101	3	
26	71	40	48	47	Clear	205		46	77	1	
27	73	39	48	47	Clear	208		27	34		
28	70	50	48	47	Clear	208					
29	71	32	47	47	Clear	210					
30	76	33	48	47	Clear	205		91	129	2	3
31	78	40	48	47	Clear	205		53	82	3	2
Totals							1,553	1,162	12	5	3

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

TABLE A-7
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 November 1967

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped				
	Air		Water				King salmon	Silver salmon	Steelhead trout		
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse	
1	75	44	48	47	Clear	236	42	60	5		
2	77	41	48	47	Clear	256	25	50	4		2
3	72	39	47	47	Clear	256	26	54	11	1	
4	60	42	48	45	Cloudy	259					
5	68	34	48	47	Cloudy	256					
6	68	34	48	47	Cloudy	259	50	72	22	1	
7	69	42	48	47	Clear	259					
8	64	52	48	48	Rain	259	15	46	35	3	
9	59	42	48	43	Clear	259	6	14	23	1	
10	53	47	48	43	Cloudy	259	2	16	10	2	
11	61	48	47	47	Cloudy	262					
12	60	47	47	47	Cloudy	262					
13	59	50	48	48	Cloudy	262	9	21	68	4	
14	62	50	48	48	Cloudy	262	6	2	11	3	
15	64	42	48	47	Clear	262					
16	62	43	48	47	Clear	262			2	45	2
17	54	43	48	47	Clear	262	6	3	64	6	
18	54	44	48	47	Rain	262					
19	57	38	47	47	Cloudy	259					
20	64	33	47	47	Clear	262	2	2	95	6	
21	63	40	47	47	Clear	262					
22	57	28	47	46	Clear	266	1	1	43	3	
23	56	32	46	46	Clear	266					
24	53	33	47	46	Clear	266	1	2	76	5	
25	55	36	46	45	Clear	266					
26	55	27	46	45	Clear	266					
27	45	28	46	46	Rain	266			50	1	
28	44	32	46	46	Cloudy	266					
29	41	32	45	45	Snow	262			46	1	
30	44	30	45	45	Snow	262			12		
Totals							191	345	630	41	4

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

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

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped					
	Air		Water				King salmon		Silver salmon			
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse		
1	41	26	45	45	Clear	240			8	1		
2	36	34	45	44	Rain	208						
3	44	33	44	44	Snow	210						
4	42	32	44	44	Rain	212						
5	43	32	44	44	Clear	205			48	1		
6	29	26	44	44	Cloudy	212			25			
7	45	30	44	44	Clear	210			11	2		
8	40	28	44	44	Clear	210						
9	42	26	44	44	Clear	210						
10	35	30	44	44	Cloudy	208						
11	41	28	44	44	Clear	208			29	2		
12	44	23	44	44	Clear	210				1		
13	36	13	44	44	Clear	208						
14	40	25	44	44	Clear	208			19	3		
15	42	13	43	43	Clear	205						
16	42	20	43	43	Cloudy	205						
17	38	17	43	43	Snow	205						
18	42	21	43	43	Cloudy	205						
19	36	23	43	43	Clear	205						
20	41	20	43	43	Snow	205						
21	37	21	43	43	Cloudy	205			13	2		
22	49	32	44	43	Clear	205						
23	43	31	44	44	Clear	205						
24	44	32	44	43	Clear	205						
25	46	32	44	44	Clear	208						
26	46	30	45	45	Clear	208						
27	43	33	45	45	Clear	210						
28	45	30	45	45	Clear	210			8	2		
29	43	28	45	45	Clear	208						
30	43	28	45	45	Clear	210						
31	42	28	45	45	Clear	210						
Totals							--	--	161	13		
1/	From U. S. Geological Survey records.											

1/ From U. S. Geological Survey records.

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
January 1968

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{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	29	53	45	45	Clear	180					
2	26	47	45	45	Clear	161					
3	28	44	44	45	Clear	161					
4	23	45	44	45	Clear	161					
5	25	44	44	44	Clear	161					
6	25	44	44	44	Clear	161					
7	21	45	44	44	Clear	159					
8	31	38	44	44	Rain	159					
9	32	34	44	44	Snow	161					
10	30	42	43	44	Clear	161					
11	20	41	44	44	Clear	159					
12	13	38	43	43	Clear	161				2	1
13	36	40	43	43	Rain	166					
14	35	39	43	43	Rain	172					
15	34	50	43	43	Rain	168					
16	32	46	43	43	Clear	166					
17	28	48	43	44	Cloudy	163				1	
18	23	48	43	43	Clear	164					
19	28	48	43	44	Clear	161					
20	30	50	43	44	Clear	161					
21	34	56	43	44	Clear	161					
22	33	58	44	45	Clear	161					1
23	28	57	44	45	Clear	161					
24	30	57	44	45	Clear	161					
25	30	57	44	45	Clear	161					
26	23	46	44	45	Cloudy	159					1
27	26	42	44	45	Cloudy	159					
28	20	32	44	45	Snow	161					
29	30	30	43	44	Snow	161					
30	30	44	43	43	Clear	161					
31	28	41	42	42	Cloudy	161					
Totals							--	--	3	--	4

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

TABLE A-1C

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
February 1968

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{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	46	32	42	42	Cloudy	161					
2	57	32	42	42	Rain	164					
3	49	34	42	42	Foggy	161					
4	46	34	43	42	Foggy	161					
5	45	33	43	42	Foggy	161					
6	59	34	44	43	Clear	159					
7	60	32	45	44	Clear	159					1
8	53	32	44	44	Clear	161					
9	53	36	45	44	Clear	159					
10	56	38	45	44	Clear	161					
11	56	37	45	45	Clear	159					
12	64	38	46	45	Clear	159					
13	60	31	46	45	Clear	159					7
14	53	31	46	45	Cloudy	159					6
15	53	37	46	45	Cloudy	157					4
16	54	42	46	45	Rain	157					7
17	66	43	46	45	Clear	157					
18	52	38	46	46	Rain	157					
19	48	44	46	46	Rain	164					20
20	54	43	46	46	Cloudy	161					6
21	62	46	46	46	Rain	159					2
22	50	45	46	46	Rain	168					
23	62	44	46	46	Rain	164					6
24	61	47	46	46	Cloudy	159					21
25	70	43	47	46	Clear	155					
26	71	41	47	46	Clear	150					24
27	76	39	48	47	Clear	153					
28	76	31	48	48	Clear	155					13
29	68	34	48	47	Clear	157					10
Totals											127

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

TABLE A-11
 Trinity River Salmon and Steelhead Hatchery
 Weather, Water, and Fish Data Report
 March 1963

Date	Temperatures (degree F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped				
	Air		Water				King salmon	Silver salmon	Steelhead		
	Maximum	Minimum	Maximum	Minimum			Adults	Grilse	Adults	Grilse	trout
1	60	43	49	48	Cloudy	155					5
2	72	42	47	47	Clear	155					
3	66	42	47	47	Cloudy	155					
4	66	40	48	48	Cloudy	153					9
5	56	40	47	46	Cloudy	157					
6	56	32	47	46	Cloudy	157					
7	53	39	47	47	Cloudy	157					2
8	63	36	47	47	Clear	157					1
9	64	34	47	46	Clear	157					
10	65	29	47	46	Clear	157					
11	60	30	47	47	Clear	157					6
12	46	38	47	46	Rain	159					
13	48	36	47	47	Rain	161					2
14	51	38	47	46	Rain	159					
15	53	35	47	46	Cloudy	159					6
16	49	38	46	46	Rain	159					
17	53	32	46	45	Cloudy	159					
18	58	28	46	45	Clear	159					
19	64	29	46	45	Cloudy	159					
20	69	28	47	46	Clear	159					
21	63	36	48	46	Clear	159					
22	64	36	48	47	Clear	159					3
23	64	41	47	46	Clear	159					
24	70	36	48	46	Clear	159					
25	54	44	49	47	Rain	161					
26	64	32	49	48	Clear	161					7
27	75	34	49	48	Clear	161					
28	81	38	50	49	Clear	161					7
29	80	42	51	50	Clear	164					
30	80	36	51	50	Clear	164					
31	73	39	51	50	Cloudy	164					
Totals							--	--	--	--	55

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

TABLE A-12

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
April 1968

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped					
	Air		Water				King salmon Adults	Grilse	Silver salmon Adults	Grilse	Steelhead trout	
Maximum	Minimum	Maximum	Minimum									
1	53	42	51	50	Rain	164						
2	65	39	52	51	Clear	161						
3	65	33	52	51	Clear	161						11
4	62	36	51	51	Clear	161						
5	62	45	52	50	Clear	161						4
6	69	30	52	51	Clear	161						
7	72	33	51	51	Clear	161						
8	70	34	51	51	Clear	161						
9	36	37	53	51	Clear	159						
10	31	39	53	52	Clear	161						9
11	30	42	52	51	Clear	159						
12	68	39	52	51	Clear	161						
13	75	38	51	51	Clear	161						
14	77	33	49	49	Clear	159						
15	64	42	49	49	Clear	161						
16	57	31	49	49	Overcast	161						
17	62	26	43	43	Sunny	161						2
18	72	27	47	47	Sunny	159						
19	66	34	47	45	Sunny	157						
20	62	26	47	46	Sunny	159						
21	63	25	46	45	Sunny	159						
22	74	27	46	45	Clear	157						
23	66	34	46	45	Cloudy	159						
24	73	36	45	44	Sunny	157						
25	74	35	45	44	Sunny	157						
26	75	36	46	46	Sunny	155						
27	63	40	48	46	Sunny	155						
28	66	36	48	46	Sunny	155						
29	63	39	50	46	Clear	155						
30	80	47	43	45	Sunny	155						
Totals							--	--	--	--	--	35

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

TABLE A-13

**Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
May 1968**

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped		
	Air		Water				King salmon Adults	Grilse	Silver salmon Adults
	Maximum	Minimum	Maximum	Minimum					Grilse
1	81	49	47	46	Clear	155			
2	88	38	43	46	Clear	155			
3	84	41	49	47	Clear	153			
4	82	43	47	46	Clear	153			
5	67	40	46	46	Clear	153			
6	76	29	46	45	Clear	155			
7	78	35	49	45	Clear	155			
8	80	37	49	45	Clear	155			
9	77	40	49	46	Clear	157			
10	80	37	47	46	Clear	157			
11	75	40	47	46	Rain	157			
12	74	38	46	46	Clear	157			
13	56	44	46	45	Cloudy	159			
14	64	40	47	45	Cloudy	157			
15	76	37	46	45	Clear	157			
16	85	38	47	45	Clear	159			
17	79	43	48	46	Overcast	157			
18	81	52	47	45	Cloudy	155			
19	62	54	47	46	Rain	157			
20	67	45	46	46	Cloudy	157			
21	63	42	45	45	Cloudy	157			
22	68	37	46	45	Clear	155			
23	66	37	46	45	Clear	157			
24	66	38	46	45	Rain	157			
25	77	48	46	45	Cloudy	155			
26	78	45	47	45	Cloudy	155			
27	88	43	48	47	Clear	155			
28	87	43	48	47	Clear	155			
29	84	45	48	47	Clear	155			
30	86	42	48	47	Clear	155			
31	88	42	48	47	Clear	155			
Totals						--	--	--	--

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

TABLE A-14

Trinity River Salmon and Steelhead Hatchery
Weather, Water, and Fish Data Report
June 1968

Date	Temperatures (degrees F)				Weather	Flow of Trinity River at Lewiston (cfs) ^{1/}	Fish trapped				
	Air		Water				King salmon Adults	King salmon Grilse	Silver salmon Adults	Silver salmon Grilse	Steelhead trout
	Maximum	Minimum	Maximum	Minimum							
1	91	52	48	48	Clear	157					
2	83	53	48	47	Cloudy	157					
3	85	48	48	47	Cloudy	155					
4	85	46	47	46	Cloudy	155					
5	60	50	48	46	Rain	155					
6	76	48	49	46	Rain	157					
7	79	42	48	47	Clear	157					
8	82	40	49	47	Clear	155					
9	86	40	48	47	Clear	155					
10	81	45	50	47	Clear	157					
11	79	52	49	48	Clear	157					
12	79	41	48	47	Clear	159					
13	80	41	48	47	Cloudy	159					
14	90	45	48	48	Clear	159					
15	96	49	48	47	Clear	159					
16	103	50	49	48	Clear	159					
17	99	52	50	48	Clear	157					
18	100	54	50	48	Clear	157					
19	98	54	50	47	Clear	155					
20	92	54	52	47	Clear	155					
21	98	52	50	49	Clear	153					
22	93	48	48	48	Clear	153					
23	95	53	49	47	Clear	153					
24	104	49	50	48	Clear	153					
25	107	50	49	48	Clear	153					
26	103	50	49	48	Clear	153					
27	94	51	49	48	Clear	153					
28	84	45	48	47	Clear	153					
29	80	40	48	47	Clear	153					
30	90	42	50	47	Clear	150					
Totals							--	--	--	--	
GRAND TOTALS							2,874	1,746	606	59	232

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

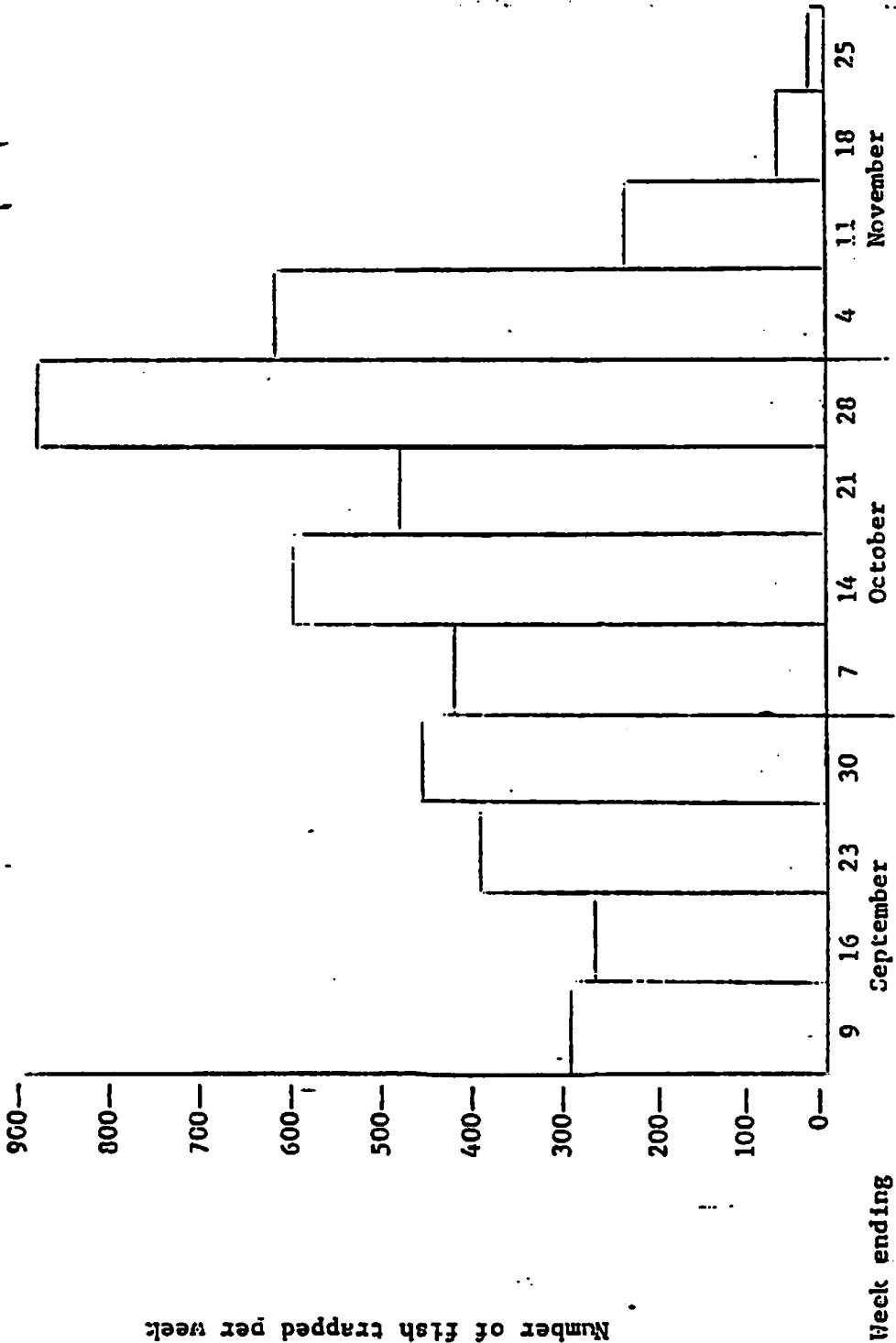


FIGURE A-1. King salmon trapped at Trinity River Fish Hatchery.
Weekly fish count September 6, 1967, through November
24, 1967.

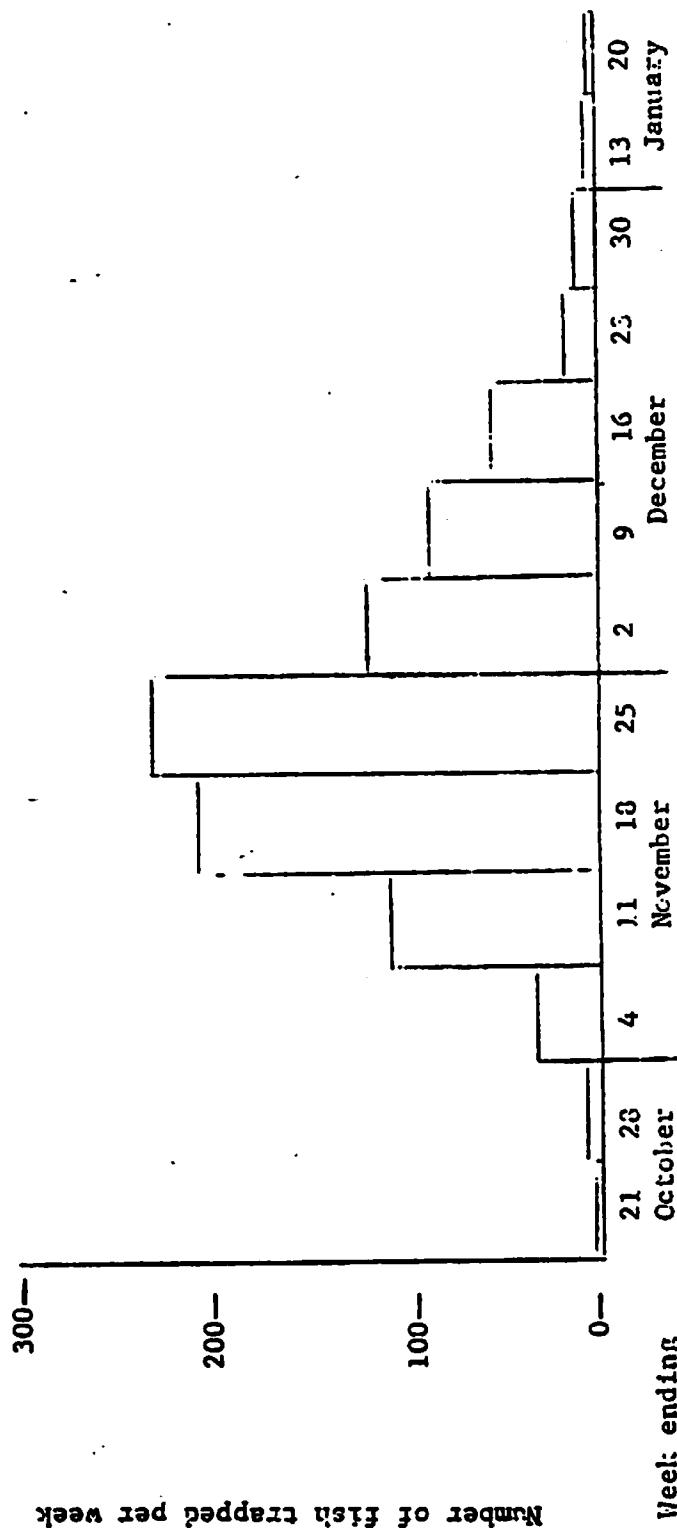


FIGURE A-2. Silver salmon trapped at Trinity River Fish Hatchery.
Weekly fish count October 18, 1967, through January 17, 1968.

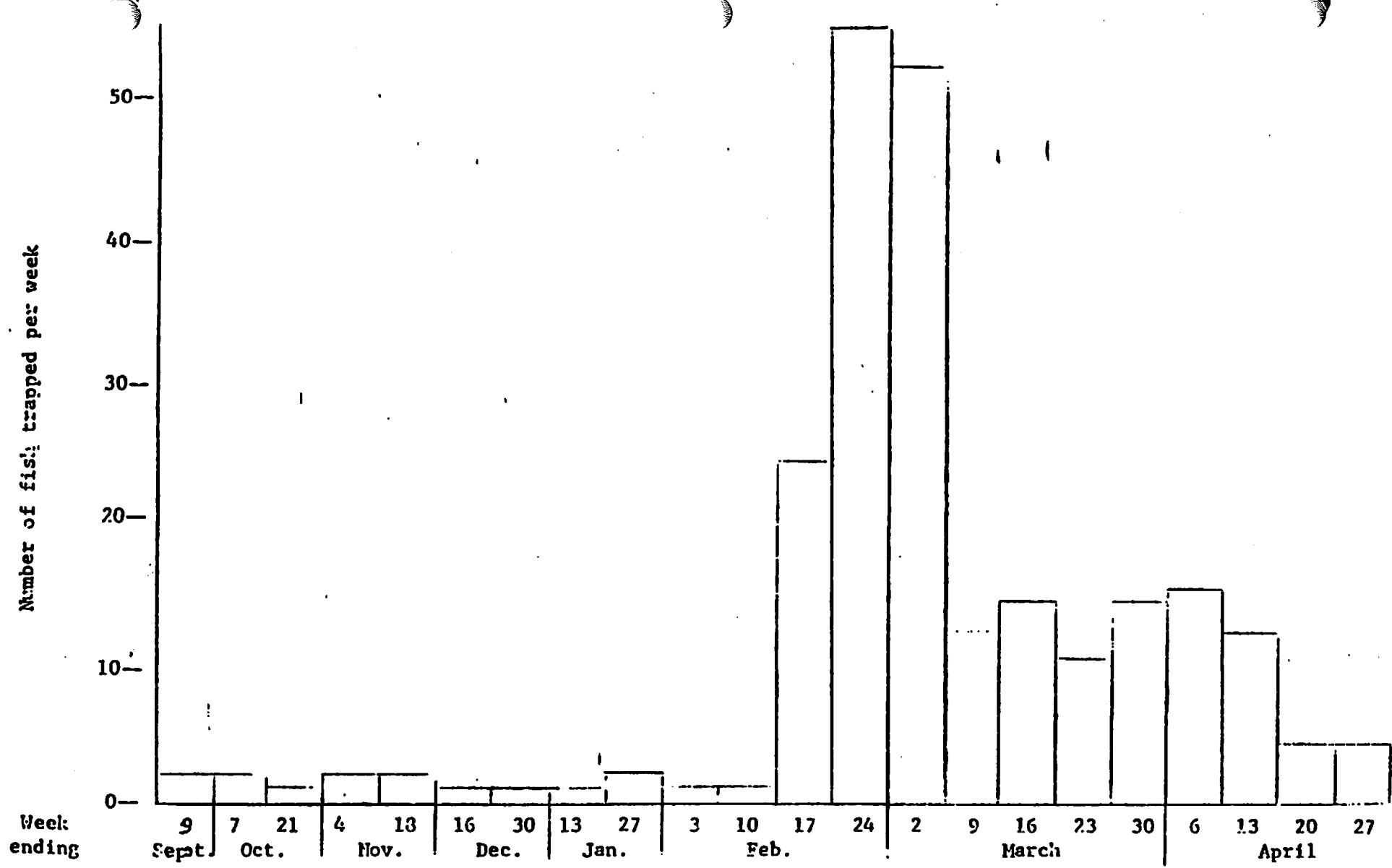


FIGURE P-3. Steelhead trout trapped at Trinity River Hatchery.
Weekly fish count September 6, 1967, through April 26, 1968.