

The Resources Agency of California
Department of Fish and Game

ANNUAL REPORT
IRON GATE SALMON AND STEELHEAD HATCHERY
1967-68^{1/}

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Region 1, Inland Fisheries

SUMMARY

The first king salmon, Oncorhynchus tshawytscha, arrived at the Iron Gate trapping facilities on September 12, 1967, and the last salmon was trapped on November 9. Silver salmon, Oncorhynchus kisutch, started entering the trap on October 6, and continued until November 24. The first steelhead trout, Salmo gairdnerii gairdnerii, entered the trap on September 13, and the last, on December 15. During this time, 461 steelhead were trapped. In 1968, the first steelhead trout arrived on January 31, and the last on May 2. During the spring run, 523 additional steelhead were trapped.

Production data are as follows:

Species	Number adults trapped	Number females spawned	Number eggs taken	Number fingerlings planted	Number yearlings planted	On hand June 30, 1968
King salmon	2,125	1,226	4,413,600	3,700,000	--	--
Silver salmon	51	3	23,645	--	51,009	79,200 ^{2/}
Steelhead trout	984	498	1,084,404	--	62,708	936,500 ^{3/}

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^{1/} Submitted August 1968

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^{2/} Includes silver salmon fingerlings hatched from eggs taken and silver salmon fingerlings hatched from eyed eggs received from Trinity River Hatchery in December 1967.

^{3/} Includes steelhead trout fingerlings hatched from eggs taken and steelhead trout yearlings remaining on hand.

INTRODUCTION

This report covers the seventh year of operation of the trapping facilities at Iron Gate. These facilities were completed by Pacific Power and Light Company in February 1962, and have been operated by the Department of Fish and Game during the spring and fall of each year.

The hatchery was constructed by Pacific Power and Light Company to compensate for spawning areas blocked by the Iron Gate project. This is the third report since the hatchery was completed in February 1966. The Department of Fish and Game, under agreement with Pacific Power and Light Company, began operation of the hatchery in March 1966. The trapping facilities and hatchery are located eight miles east of Hornbrook, Siskiyou County.

This report summarizes the number of fish trapped and spawned, production of eggs and fish, and water conditions from July 1, 1967, through June 30, 1968.

KING SALMON MAINTENANCE PROGRAM

History of the 1967 Salmon Run

The fish ladder was opened on September 12, 1967, and the first king salmon entered the trap on that date. When the run ended on November 9, 2,667 fish had been trapped. Of these, 845 were males, 1,269 females, and 553 grilse. Thus, of the adult salmon trapped, 40% were males and 60% females.

The 1,226 females spawned produced 4,413,600 eggs. Fourteen lots of eggs were taken; the first on September 22 and the last on November 2. Average fertility of the eggs was 91%. The first lot of salmon spawned consisted of one male and one female trapped in May and June of 1967. The resulting fingerlings of this lot have been held and reared separately and will be released at the appropriate time to encourage a spring salmon run in the Klamath River.

Of the 2,667 king salmon trapped, 48 had right-maxillary marks and 50 had left-maxillary marks. There were 15 males (averaging 30½ inches fork length), 28 females (averaging 29 inches fork length), and 5 grilse with a right-maxillary mark. Nineteen males (averaging 31 inches fork length), 23 females (averaging 29½ inches fork length), and 3 grilse had a left-maxillary mark.

The ladder was opened again on June 21, 1968, at which time 20 spring salmon entered the trap. These fish will be held for fall spawning.

Planting 1967 Brood-Year King Salmon

On April 12, 1968, screens were removed and 3,200,000 king salmon fingerlings were released in the Klamath River through the hatchery discharge. At this time they averaged 538 per pound. On April 29, 480,000 more king salmon, averaging 240 per pound, were released. On May 16, the remaining 20,000 king salmon fingerlings, averaging 70.4 per pound, were released.

SILVER SALMON MAINTENANCE PROGRAM

History of 1967 Salmon Run

The first silver salmon entered the trap on October 6, and the last, on November 24. During this period 79 silver salmon were trapped. Of these, 27 were males, 24 females, and 28 grilse. Most of the females died prior to ripening. Eight females were spawned producing 23,645 eggs, for an average of 2,956 eggs per female. Average fertility of the eggs was 81%.

On December 14, 1967, 76,946 eyed silver salmon eggs were received from Trinity River Hatchery. In April 1968, the 14,200 Klamath River silver salmon fingerlings were combined in the raceway with the Trinity River fingerlings. Balance on hand of 1967 silver salmon fingerlings on June 30, 1968, was 79,200.

Planting 1966 Brood-Year Silver Salmon

On December 5, 1967, 19,502 Cascade silver salmon were released in the Klamath River through the raceway discharge. These fish averaged 6.8 per pound. On April 10, 1968, the balance of 31,507 Cascade silver salmon, averaging 14.4 per pound, were released.

STEELHEAD MAINTENANCE PROGRAM

History of 1967-68 Steelhead Run

During the fall of 1967, a total of 461 steelhead trout entered the trap. These fish were placed in holding ponds to be spawned in the spring.

The first spring steelhead trout entered the trap on January 31, 1968. When this run ended on May 2, a total of 523 more steelhead had been trapped, bringing the grand total to 984. Eighteen lots of eggs were taken from 498 females, producing 1,084,404 eggs. Spring trapped females averaged 2,356 eggs per female and fall trapped females averaged 2,078 eggs per female. Progeny of the fall and spring trapped steelhead are being reared separately.

A shipment of 84,460 eyed steelhead eggs was made to Trinity River Hatchery on April 23, 1968. Another 62,816 eyed steelhead eggs were shipped to Trinity River on April 30, 1968. The balance on as of June 30, 1968, of Klamath River steelhead fingerlings was 788,000.

On April 24, 1968, the Department entered into an agreement with Pacific Power and Light Company and the Oregon Game Commission to rear 100,000 yearling steelhead at Iron Gate Hatchery. The plan involves planting adult steelhead in the Klamath River above the utility company's Copco Dam on an experimental basis with the aim of establishing a steelhead fishery on the river between Klamath Falls and Copco Lake, which lies just south of the California-Oregon border. The fish raised under this agreement will be marked before release in the Klamath River below Iron Gate so that they can be identified upon return. Sufficient eggs will be taken from the returning marked adults to raise 100,000 yearlings to continue the program. The marked returning adults will be trucked by the Oregon Game Commission to the Upper Klamath River for release. Pacific Power and Light Company will assume the entire cost of the program. This agreement will continue for five years or until three separate brood years of steelhead have been tested.

Planting 1967 Brood-Year Steelhead

On May 6, 1968, 25,688 adipose-marked yearling steelhead were released in the Klamath River via the raceway discharge. These fish averaged 8 per pound. A balance of 148,500 yearling steelhead remained on hand June 30, 1968. These fish will be released in the early spring of 1969.

Planting 1966 Brood-Year Steelhead

On April 9, 1968, 37,020 steelhead were released in the Klamath River through the raceway discharge. These fish averaged 5.9 per pound and were a combination of Trinity River, Klamath River, and salvaged steelhead.

PUBLIC RELATIONS

During the period of this report, an estimated 5,809 persons visited the hatchery. Included in the total were 1,387 people in 20 organized groups conducted through the installation.

APPENDIX

APPENDIX

- TABLE A-1. Yearly Comparison of Fish Trapped at Iron Gate Salmon and Steelhead Hatchery - Compares the number of fish, by species, trapped at Iron Gate trapping facilities from July 1, 1964, 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, and number of fish, by species, trapped at Iron Gate Hatchery.
- FIGURES A-1 through A-4. Show weekly number of king salmon, silver salmon, and steelhead trout trapped.

TABLE A-1

Yearly Comparison of Fish Trapped at
Iron Gate Salmon and Steelhead Hatchery
July 1, 1964, through June 30, 1968

Species	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	837	141	1,129	850
Female	1,651	224	1,610	1,275
Total adults	2,488	365	2,739	2,125
Grilse	110	313	325	562
Totals	2,598	678	3,064	2,687
Silver salmon				
Male	--	2	2	27
Female	--	--	2	24
Total adults	--	2	4	51
Grilse	--	--	--	28
Totals	--	2	4	79
Steelhead trout				
Adults	1,065	227	299	984

TABLE A-2
Chart of Operation
Iron Gate Salmon and Steelhead Hatchery
1967-68

Species	Fish trapped	Females spawned	Eggs taken	Eggs received by transfer	Fingerlings planted	Yearlings planted	Fish on hand June 30, 1968
King salmon							
Male	850						
Female	1,275						
Grilse	562						
Totals	2,687	1,226	4,413,600	--	3,700,000	--	--
Silver salmon							
Male	27						
Female	24						
Grilse	28						
Totals	79	8	23,645	76,946 ^{1/}	--	51,009	79,200
Steelhead trout	984	498	1,084,404	--	--	62,708	936,500

^{1/}Eyed eggs received by transfer from Trinity River Hatchery.

TABLE A-3

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
July 1967

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	107	61	50	46	Clear					
2	106	64	50	46	"					
3	102	63	48	46	Partly cloudy					
4	100	60	51	46	Clear					
5	97	60	51	47	Partly cloudy					
6	90	54	53	49	Clear					
7	96	52	53	49	Partly cloudy					
8	90	55	54	49	" "					
9	90	54	53	50	Clear					
10	99	54	52	50	"					
11	104	60	52	50	"					
12	100	60	54	50	"					
13	95	61	54	50	"					
14	100	57	54	49	"					1
15	96	58	54	49	"		1			
16	93	58	54	49	Partly cloudy					
17	90	55	54	49	Clear					
18	85	52	54	50	"					
19	84	50	55	50	"					
20	90	52	56	50	"					
21	96	55	55	50	"					
22	98	57	54	50	"					
23	100	55	54	52	"					
24	100	55	54	51	"					
25	90	56	55	51	"					
26	92	49	55	50	"					
27	102	50	55	50	"					
28	97	58	54	51	Cloudy					
29	100	60	54	52	Clear					
30	97	56	54	52	"					
31	92	56	56	52	"					
Totals						--	1	--	--	1

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TABLE A-4
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
August 1967

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	100	55	55	51	Clear					
2	99	56	55	52	"					
3	98	56	55	51	"					
4	93	57	54	52	"					
5	91	54	55	52	"					
6	81	53	56	52	"					
7	92	47	56	52	"					
8	98	50	55	53	"					
9	99	54	54	53	Cloudy					
10	100	64	54	53	Partly cloudy					
11	100	56	54	52	Clear					
12	101	55	55	53	"					
13	103	57	56	53	"					
14	105	57	55	52	"					
15	105	58	55	52	"					
16	105	60	55	53	"					
17	105	60	55	53	"					
18	107	62	55	52	Partly cloudy					
19	108	63	56	53	Clear					
20	97	60	55	52	"					
21	95	56	56	52	"					
22	104	56	56	52	"					
23	99	59	55	53	"					
24	101	57	56	53	Partly cloudy					
25	98	58	55	54	"					
26	89	67	55	54	Cloudy					
27	97	54	56	54	Partly cloudy					
28	98	56	56	54	"					
29	100	51	56	54	Clear					
30	101	50	56	54	"					
31	99	53	56	54	Partly cloudy					
Totals						--	--	--	--	--

TABLE A-5

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
September 1967

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	97	50	57	54	Clear					
2	97	51	57	54	"					
3	93	54	57	54	"					
4	96	52	57	54	Partly cloudy					
5	91	54	57	55	" "					
6	94	54	57	54	Clear					
7	93	53	57	55	"					
8	90	50	57	55	"					
9	88	46	58	55	"					
10	78	48	57	56	Partly cloudy					
11	78	56	57	56	" "					
12	86	43	58	55	Clear	1				
13	88	57	58	54	"	2				
14	91	42	58	56	"	4				
15	94	42	58	56	"	1				
16	94	46	58	56	"	4				
17	72	54	58	57	Cloudy	14	1			
18	86	50	58	56	Clear	14	1			1
19	91	48	58	56	"	23				
20	98	54	58	56	"	38	1			2
21	98	53	57	56	Partly cloudy	31	4			
22	89	53	58	56	Clear	25	1			
23	94	45	58	56	"	18	3			
24	94	47	58	57	"	22	2			3
25	90	48	58	56	"	54	2			3
26	96	47	58	55	"	55	5			1
27	99	48	58	56	"	26				3
28	98	50	58	56	"	100	8			8
29	84	51	59	56	Partly cloudy	95	12			6
30	74	56	59	57	" "	85	7			5
Totals						612	47	--	--	32

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TABLE A-6

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
October 1967

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	69	54	59	58	Cloudy	47	3			1
2	56	46	60	57	Rain	25	4			1
3	67	40	60	58	Cloudy	80	11			3
4	72	36	60	58	"	108	18			1
5	67	44	60	58	Partly cloudy	84	17			4
6	72	36	60	56	" "	36	3		1	1
7	79	37	59	56	Clear	51	10			5
8	79	40	59	56	Cloudy	113	20			5
9	81	41	59	56	Clear	58	14			2
10	82	42	59	57	Partly cloudy	126	12		8	3
11	73	52	59	57	" "	74	25		2	6
12	75	37	59	57	" "	89	39			3
13	72	37	59	56	Cloudy	91	20			2
14	70	32	59	57	Clear	80	53		5	12
15	76	32	59	56	"	133	60	6	2	6
16	80	31	59	55	"	58	20	4	2	2
17	80	32	58	55	"	52	9	1		13
18	80	36	59	56	Cloudy	41	18	3	1	5
19	75	36	59	57	Clear	30	23	2		17
20	78	32	59	57	"	18	10	1		11
21	68	52	59	57	Rain	31	21	6		18
22	69	44	58	56	"	25	27	3	2	25
23	68	42	58	56	Cloudy	12	7	2		22
24	72	35	57	56	"	16	16	1	1	10
25	65	50	57	56	"	3	6	1		12
26	67	31	58	57	"	8	8	3		23
27	62	38	57	56	"	3	6	1		6
28	60	45	56	56	"	5	9			15
29	66	28	56	54	Clear	1	2	2	2	9
30	70	30	56	55	"	2	3			6
31	75	32	55	54	"	2	1	3		3
Totals						1,502	495	39	26	252

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TABLE A-7

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
November 1967

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	76	33	55	55	Clear			2	2	8
2	76	40	56	54	"		3	2		8
3	75	40	56	54	Partly cloudy		3			11
4	61	34	55	53	Cloudy		2			4
5	69	38	54	52	"		1			6
6	68	32	54	52	"			1		5
7	68	34	54	52	"					3
8	71	46	54	51	Rain					5
9	60	44	53	52	"		1	3		11
10	64	38	53	52	Cloudy					2
11	68	38	53	52	"					10
12	74	45	53	51	"					4
13	67	46	52	52	"			1		10
14	64	50	51	50	"					7
15	62	33	52	50	"					10
16	63	31	52	50	"			1		1
17	64	31	52	50	"					5
18	58	35	52	51	Partly cloudy					11
19	62	40	51	50	" "					9
20	60	30	51	50	" "					6
21	63	24	51	50	Clear					4
22	57	34	51	49	Partly cloudy					8
23	59	24	50	48	Clear					1
24	60	21	50	48	Partly cloudy			2		1
25	53	22	50	48	Clear					3
26	52	17	50	47	"					1
27	50	22	49	48	Rain					3
28	53	28	48	46	"					3
29	48	34	48	46	Snow					
30	48	27	47	46	"					4
Totals						--	10	12	2	164

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TABLE A-8
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
December 1967

Date	Temperature (degree F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	48	26	47	46	Cloudy					5
2	46	36	46	44	Rain					4
3	48	35	45	43	Cloudy					
4	50	31	44	43	Rain					
5	44	33	44	42	Partly cloudy					2
6	44	24	44	44	Snow					
7	51	32	43	42	"					
8	42	24	43	42	Cloudy					
9	47	29	43	42	"					
10	42	23	43	41	"					
11	44	29	42	41	"					
12	38	17	42	40	Snow					
13	34	11	42	40	Clear					
14	38	17	40	39	"					
15	39	10	40	39	"					1
16	42	10	40	39	Cloudy					
17	40	28	36	34	Snow					
18	44	28	38	36	"					
19	39	8	36	34	Partly cloudy					
20	41	14	34	32	" "					
21	39	18	34	33	Snow					
22	47	30	34	33	Cloudy					
23	48	24	34	32	Fog					
24	42	20	34	33	Silver frost					
25	38	22	34	33	" "					
26	42	20	34	32	" "					
27	42	20	34	33	Fog					
28	40	27	34	33	"					
29	46	14	34	32	Clear					
30	42	11	35	33	"					
31	41	11	35	33	Partly cloudy					
Totals						--	--	--	--	12

TABLE A-9
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
January 1968

Date	Temperature (degree F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	46	20	34	33	Partly cloudy					
2	46	18	35	33	Clear					
3	43	10	36	34	"					
4	44	10	36	35	"					
5	43	10	37	35	"					
6	40	8	37	35	"					
7	48	14	37	35	Partly cloudy					
8	47	28	36	35	Cloudy					
9	45	33	36	35	Rain					
10	46	31	36	35	Snow					
11	37	11	37	34	Clear					
12	53	16	37	35	Cloudy					
13	57	38	36	34	Rain					
14	49	38	36	35	"					
15	54	41	36	34	Partly cloudy					
16	49	29	36	34	" "					
17	45	19	36	34	" "					
18	46	25	36	35	" "					
19	58	27	36	34	" "					
20	56	24	36	34	Clear					
21	62	33	36	34	"					
22	62	16	36	34	"					
23	60	24	36	34	"					
24	60	21	36	34	"					
25	50	26	36	35	"					
26	43	19	38	36	Snow					
27	45	20	38	36	Cloudy					
28	43	19	38	37	"					
29	44	18	38	37	Snow					
30	45	18	38	36	Cloudy					
31	48	24	38	36	"					
Totals						--	--	--	--	7
										7

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TABLE A-10
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
February 1968

Date	Temperature (degree F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	52	24	38	36	Rain					
2	52	38	38	36	"					2
3	59	35	38	36	Partly cloudy					2
4	58	28	38	36	Fog					1
5	56	28	38	35	"					1
6	60	29	37	36	Cloudy					
7	61	26	38	35	Clear					
8	63	26	38	36	"					
9	60	30	38	36	Partly cloudy					7
10	62	34	38	36	" "					2
11	60	40	38	36	" "					2
12	62	26	38	36	Clear					3
13	55	22	38	36	"					1
14	57	25	38	36	Cloudy					3
15	63	29	38	36	Partly cloudy					2
16	60	30	38	36	" "					1
17	69	37	38	36	" "					16
18	63	35	38	37	" "					6
19	60	42	38	38	Rain					11
20	56	41	38	38	Cloudy					13
21	60	45	38	37	Rain					12
22	57	44	39	38	"					30
23	69	44	39	37	Partly cloudy					13
24	68	40	40	37	" "					22
25	70	33	40	37	" "					16
26	73	31	41	40	Clear					10
27	73	32	43	39	"					34
28	74	30	46	44	"					35
29	74	29	46	45	"					36
Totals						--	--	--	--	281

TABLE A-11

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
March 1968

Date	Temperature (degree F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	62	29	46	45	Cloudy					32
2	71	32	46	44	Clear					30
3	69	32	44	42	Partly cloudy					19
4	74	34	46	45	" "					5
5	62	40	46	44	" "					
6	60	27	47	46	Cloudy					7
7	59	30	47	46	Partly cloudy					5
8	62	26	48	47	Clear					
9	60	24	49	47	"					21
10	64	22	49	47	Partly cloudy					6
11	69	34	48	42	Cloudy					1
12	48	42	46	40	Rain					2
13	56	30	47	46	Cloudy					
14	60	38	47	47	Rain					5
15	62	34	48	47	Cloudy					6
16	58	41	48	46	Rain					2
17	51	33	48	47	"					4
18	54	32	49	47	Partly cloudy					1
19	66	23	48	47	Clear					5
20	70	24	48	47	"					
21	70	28	49	47	Cloudy					
22	69	38	48	47	"					
23	65	37	48	47	"					4
24	72	34	48	47	"					6
25	59	34	48	47	Rain					
26	67	26	49	48	Clear					3
27	73	30	50	48	"					4
28	77	34	52	49	"					13
29	78	35	54	51	"					7
30	76	34	54	51	"					5
31	79	33	54	49	Partly cloudy					6
Totals						--	--	--	--	199

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TABLE A-12
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
April 1968

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	68	46	52	48	Rain					1
2	56	42	52	51	Cloudy					2
3	69	27	53	51	"					
4	68	41	55	52	"					1
5	57	40	53	52	Rain					6
6	60	28	52	51	Cloudy					1
7	64	32	54	51	Clear					
8	77	29	53	50	"					1
9	85	24	53	51	"					
10	87	37	54	52	"					
11	72	38	57	52	"					6
12	61	33	56	54	"					2
13	72	23	53	52	"					
14	77	29	53	52	"					
15	61	42	54	53	Cloudy					7
16	54	30	53	53	"					
17	63	23	55	52	Partly cloudy					
18	69	23	55	52	" "					
19	58	34	54	52	Clear					
20	58	27	53	52	"					1
21	65	36	54	52	"					
22	74	28	54	52	"					1
23	58	40	54	52	Rain					
24	68	27	56	52	Cloudy					1
25	70	34	56	53	"					2
26	72	46	55	54	"					
27	79	41	55	54	Clear					2
28	89	33	55	53	"					
29	89	38	55	51	"					
30	72	39	54	51	"					
Totals						--	--	--	--	34

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TABLE A-13

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
May 1968

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	74	37	57	54	Clear					1
2	86	33	55	54	"					1
3	90	40	56	54	Partly cloudy					
4	74	44	58	54	Clear					
5	59	38	57	56	Partly cloudy					
6	69	26	55	54	Clear					
7	81	30	55	53	"					
8	87	36	55	53	"					
9	83	37	56	53	Partly cloudy					
10	78	40	56	46	" "					
11	70	45	49	48	Rain					
12	73	36	49	48	"					
13	68	41	50	49	Cloudy					
14	70	41	53	49	"					
15	79	34	52	52	Clear					
16	86	37	52	51	"					
17	82	42	52	51	Cloudy					
18	86	47	52	50	"					
19	68	56	51	50	Rain					
20	72	47	51	50	Partly cloudy					
21	70	38	51	50	" "					
22	71	40	52	51	" "					
23	69	47	52	52	" "					
24	72	34	52	51	Cloudy					
25	76	51	53	50	Partly cloudy					
26	81	54	53	52	" "					
27	90	41	53	52	" "					
28	88	50	54	52	" "					
29	76	43	55	52	" "					
30	84	40	54	53	Clear					
31	86	40	54	53	Partly cloudy					
Totals						--	--	--	--	2

TABLE A-14
Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
June 1968

Date	Temperature (degrees F)				Weather	Fish trapped				
	Air		Water			King salmon		Silver salmon		Steelhead trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	94	56	54	53	Partly cloudy					
2	84	55	55	54	Rain					
3	86	46	55	53	Cloudy					
4	87	46	53	52	Partly cloudy					
5	66	52	53	52	Rain					
6	69	50	53	52	Cloudy					
7	73	40	53	52	"					
8	74	38	53	52	Clear					
9	84	38	53	52	Partly cloudy					
10	38	40	53	51	" "					
11	74	50	53	51	Cloudy					
12	82	36	53	51	Clear					
13	80	38	53	51	Partly cloudy					
14	87	44	53	51	" "					
15	96	47	53	51	Clear					
16	100	50	53	51	"					
17	103	53	53	51	"					
18	102	57	53	51	"					
19	92	57	52	51	Cloudy					
20	96	54	53	51	Clear					
21	94	52	53	51	"	11	9			
22	94	50	54	51	Rain					
23	93	51	53	52	Clear					
24	103	58	55	53	"					
25	109	52	54	53	"					
26	100	58	55	52	"					
27	84	56	55	52	"					
28	78	44	56	53	"					
29	79	45	56	53	Partly cloudy					
30	94	40	54	53	Clear					
Totals						11	9	--	--	--
GRAND TOTALS						2,125	562	51	28	984

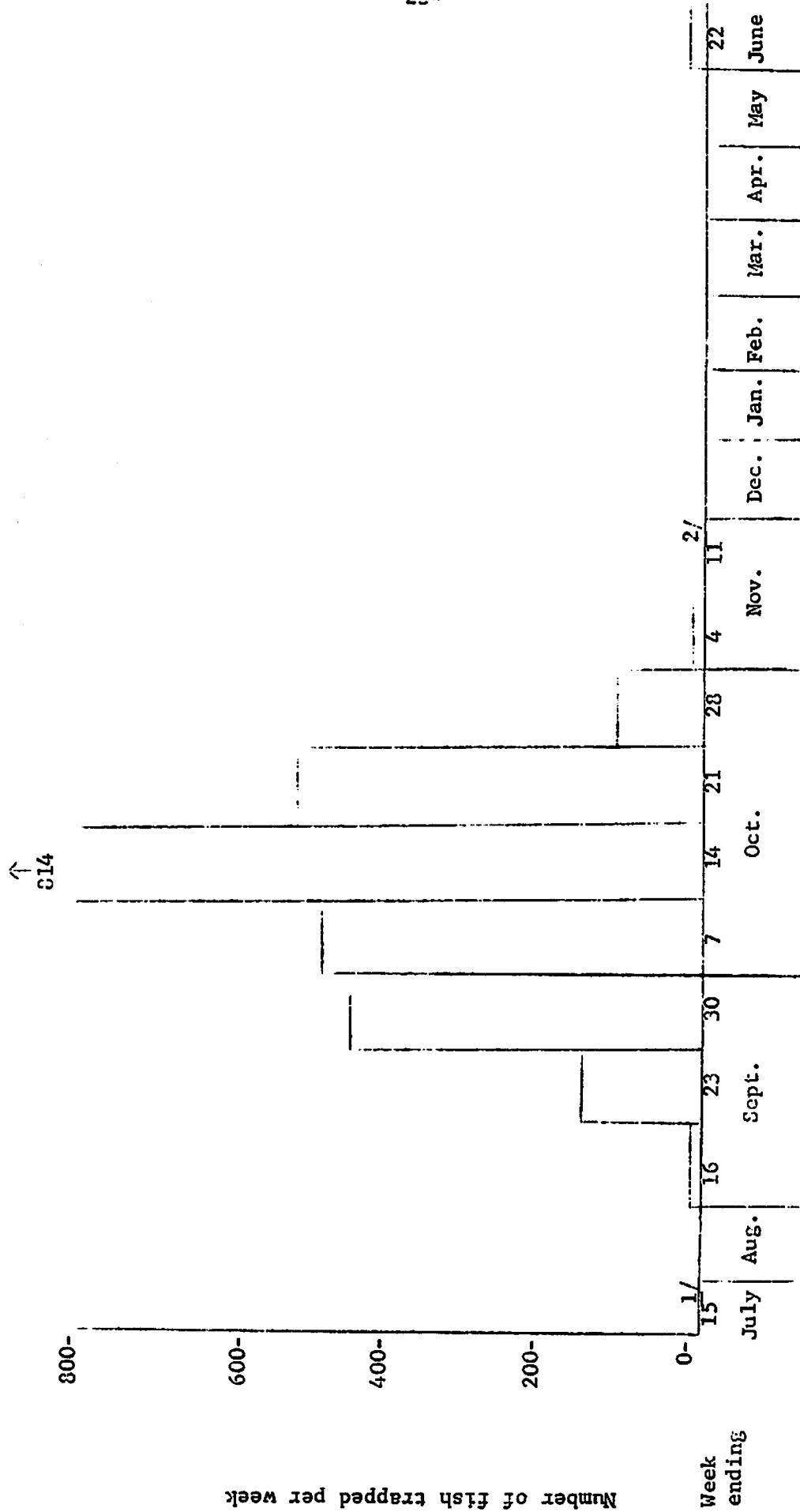


FIGURE A-1. King salmon trapped at Iron Gate Salmon and Steelhead Hatchery.
Weekly fish count from July 9, 1967, through June 22, 1968.

1/ July 9-15 = 1 2/ Nov. 5-11 = 2

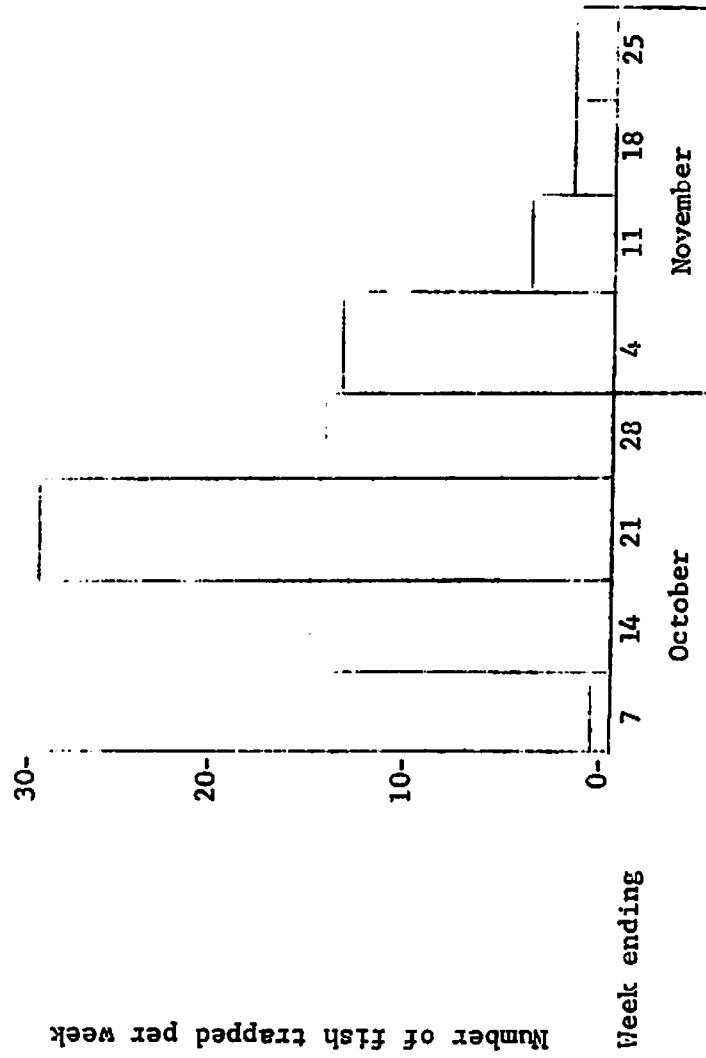


FIGURE A-2. Silver salmon trapped at Iron Gate Salmon and Steelhead Hatchery. Weekly fish count from October 1, 1967, through November 25, 1967.

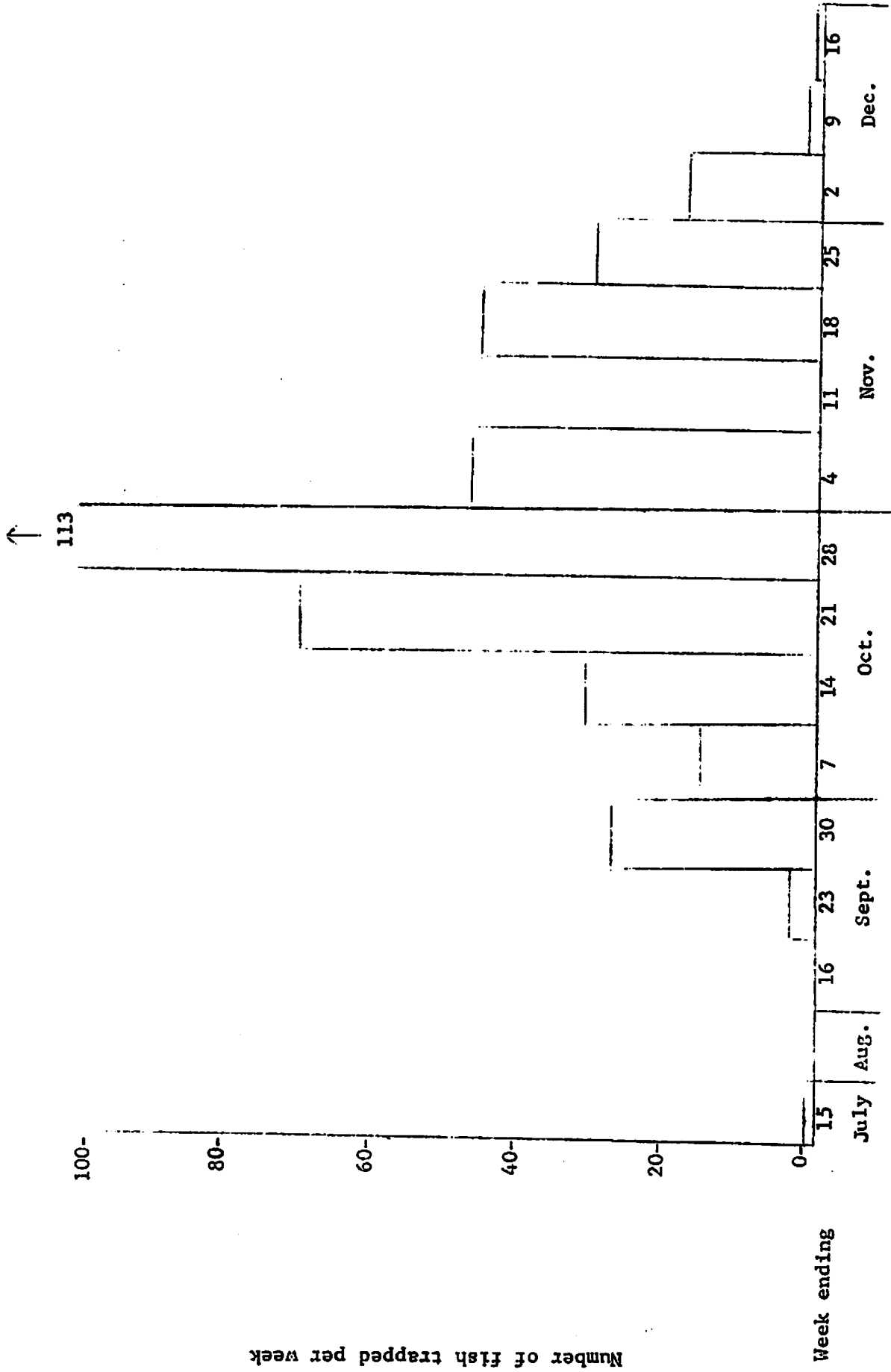


FIGURE A-3. Steelhead trout trapped at Iron Gate Salmon and Steelhead Hatchery. Weekly fish count from July 9, 1967, through December 16, 1967.

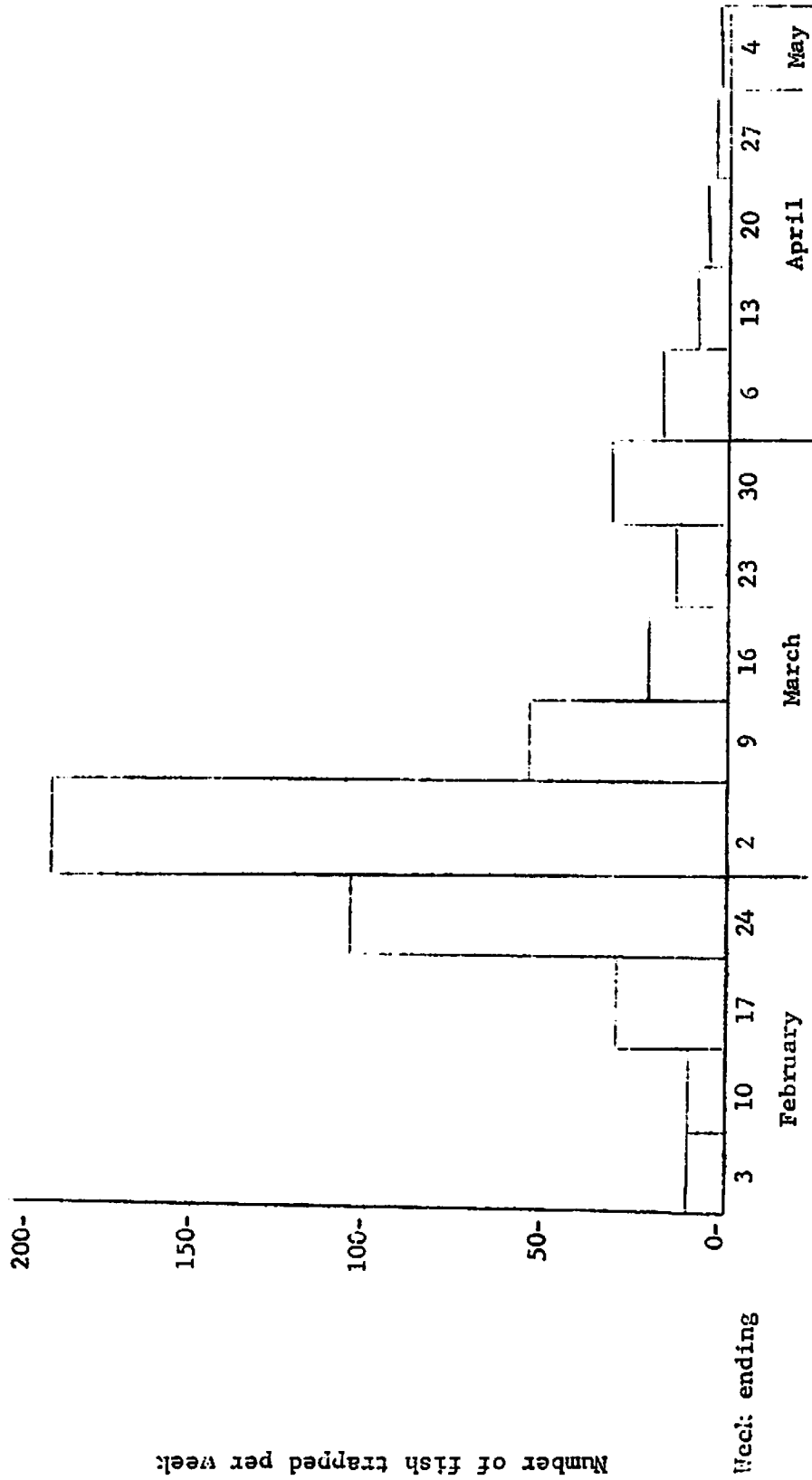


FIGURE A-4. Steelhead trout trapped at Iron Gate Salmon and Steelhead Hatchery. Weekly fish count from January 28, 1968, through May 4, 1968.