

State of California
The Resources Agency
Department of Fish and Game

ANNUAL REPORT IRON GATE SALMON AND STEELHEAD HATCHERY
SIXTH YEAR OF OPERATION, 1970-71^{1/}

by

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SUMMARY

The first fall-run king salmon, Oncorhynchus tshawytscha, arrived at the Iron Gate trapping facilities on September 6, 1970, and the last on November 2, 1970. Spring-run king salmon were taken on July 12, 1970 (for spawning in the fall of 1970), and from June 15, 1971, until June 30, 1971 (for spawning in the fall of 1971). Silver salmon, Oncorhynchus kisutch, started entering the trap September 17, 1970, and continued until November 14, 1970. Steelhead trout, Salmo gairdnerii, were trapped from October 16, 1970, to April 26, 1971.

For the fourth consecutive year, part of the yearling steelhead production has been marked for a cooperative program with the Pacific Power and Light Company and the Oregon Game Commission. When these fish return as adults they will be released in the upper Klamath River above Copco Dam.

Production data are as follows:

Species	Number trapped	Number females spawned	Number eggs taken	Number fingerlings planted	Number yearlings planted	Total pounds planted	On hand June 30, 1970
King salmon							
fall run							
adults	10,274						
grilse	218	6,349	16,828,482	11,943,140	0	111,597	0
spring run	64*	15	43,296	0	48,920 ^{2/}	7,214	12,000
Silver salmon							
adults	1,387						
grilse	236	437	1,193,995	388,980	90,130 ^{2/}	15,098	110,000
Steelhead trout	2,365	1,095	2,682,777	1,047,445	665,428 ^{3/}	47,241	876,000

* Includes 51 adults trapped from June 15, 1970, to June 30, 1970.

- ^{1/} Anadromous Fisheries Branch Administrative Report No. 72-10.
Submitted October, 1971
- ^{2/} 1969 brood year.
- ^{3/} 1970 brood year.

INTRODUCTION

This report covers the tenth year of operation of the trapping facilities at Iron Gate. These facilities were completed by the 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 the Pacific Power and Light Company to compensate for spawning and nursery areas blocked by the Iron Gate project. This is the sixth report since the hatchery was completed in February, 1966. The Department of Fish and Game, under agreement with the Pacific Power and Light Company, began operation of the hatchery in March, 1966. The trapping facilities and hatchery are located on the Klamath River eight miles east of Hornbrook, Siskiyou County.

This report summarizes the number of fish trapped and spawned, production of eggs and fish, and water and weather conditions from July 1, 1970, through June 30, 1971.

KING SALMON MAINTENANCE PROGRAM

History of the 1970 Salmon Run

During the period from July 1, 1970 through July 17, 1970, two adult spring-run salmon were trapped. These were added to the 18 males and 33 females taken in May and June, 1970. The combined group was held separately and spawned in the fall of 1970. On July 17, 1970, the water supply to the ladder and trap was shut down to conserve the cold water pool in Iron Gate Reservoir.

The fish ladder was opened again on September 6, 1970. A total of 10,493 fall-run salmon were trapped. This total consisted of 2,888 males (27.5%), 7,386 females (70.4%), and 219 grilse (2.1%).

There were 6,349 fall-run king salmon females spawned, producing 16,828,482 eggs; an average of 2,651 eggs per female. The 15 spring-run females spawned produced 43,296 eggs; an average of 2,886 eggs per female. Twenty-four lots of eggs were taken, 4 from spring-run fish and 20 from fall-run fish. The average fertility of the spring-run salmon eggs was 81% and that of the fall-run was 94.6%. The progeny of the spring-run salmon are being reared separately. Half of these fish, marked RV, will be released in the fall of 1971, the other half, marked LV, will be released in the spring of 1972. From June 15, 1971, to June 30, 1971, 10 spring-run salmon entered the trap, and will be held for spawning in the fall of 1971.

Marked King Salmon

During the 1970-71 fiscal year, 29 marked king salmon were trapped. Two were Iron Gate marks. The rest were reared at Trinity Hatchery. The marks were as follows:

Mark	Number trapped	Brood & run	Number released	Date released	Size at release	Release site
RV	2	1967 Spring	100,000	3/69	7"	Trinity R. Hat.
Ad	1	1966	52,185	3/68	10.9/lb	" " "
RM	7	1964 Spring	100,000	10/65	15.7/lb	" " "
LM	17	" "	"	5/65	192/lb	" " "
LP	2	1967 Spring	3,360	11/68	20/lb	Iron Gate Hat.

Planting 1969 Brood-Year Spring-Run King Salmon and
1970 Brood-Year Fall-Run King Salmon

Species	Date planted	Size	No. fish	Locality of plant
King Salmon				
1969 Spring-run	12/3/70	15/lb	30,200	Hatchery discharge
	"	3.6/lb	18,720	" "
1970 Fall-run	4/4/71	400/lb	1,200,000	" "
	4/19/71	300/lb	500,000	" "
	5/7/71	150/lb	600,000	" "
	6/1/71	90/lb	4,995,000	" "
	6/7/71	98/lb	4,648,140	" "

SILVER SALMON MAINTENANCE PROGRAM

History of the 1970 Run

The first silver salmon entered the trap on September 17, 1970, and the last on November 14, 1970. A total of 1,623 silver salmon were trapped. Of these, 716 (44.1%) were males, 671 (41.3%) females, and 236 (14.5%) grilse. Spawning of 437 females produced 1,193,995 eggs; an average of 2,732 each. The first spawning was on November 2, 1970, and the last on November 16, 1970.

Planting 1969 and 1970 Brood-Year Silver Salmon

Brood year	Date planted	Size	No. fish	Locality of plant	
1969	12/3/70	8/lb	15,775 <u>4</u> /	Hatchery discharge	
	"	10/lb	29,500 <u>5</u> /	"	"
	3/16/71	6.0/lb	44,855 <u>6</u> /	"	"
1970	6/15/71	180/lb	388,980	"	"

Planting Adult Silver Salmon

Four hundred surplus silver salmon adults, trapped at Iron Gate Salmon and Steelhead Hatchery, were released in the Klamath River system.

All releases were approximately one-half male and one-half female. Initial planting loss for the six plants did not exceed 15 fish. (See the following table.)

Date	Number	Stream	Location
11/12/70	10	Shackleford Creek	T43N, R10W, Sec. 9
"	90	E. Fork of S. Fork Salmon R.	T39N, R10W, Sec. 24
11/16/70	100	N. Fork Salmon R.	T41N, R11W, Sec. 35
"	50	Methodist Creek	T39N, R12W, Sec. 31
11/18/70	40	Shackleford Creek	T43N, R10W, Sec. 9
"	110	S. Fork Scott R.	T40N, R8W, Sec. 20

STEELHEAD TROUT MAINTENANCE PROGRAM

History of the 1970-71 Run

During the fall period (October 16, 1970, to December 31, 1970) 292 adult steelhead entered the trap and were placed in the holding ponds to await spawning in the spring. From January 1, 1971, to April 26, 1971, another 2,073 adult steelhead were trapped. For the third year these early and late groups were held and spawned separately. From the earlier trapping, 157 females produced 394,057 eggs; an average of 2,510 eggs each, while in the later group 938 females produced 2,288,720 eggs; an average of 2,440 eggs per female. This made a total of 2,682,777 steelhead eggs, from 1,095 females, for the season. The overall fertility for both groups was 81%.

Large numbers of marked steelhead were trapped this year, some were strays from other river systems. Of those trapped 803 were marked and released at Iron Gate Hatchery and 13 were marked at Iron Gate and released at Happy Camp on the Klamath River. Another 72 were from other locations. (See Table A-2 for complete listing.)

- 4/ Marked Ad-An-LV.
- 5/ Marked An-LV.
- 6/ 17,780 marked Ad-An-RV, 27,075 marked An-RV.

Planting 1970 and 1971 Brood-Year Steelhead

Date	Number	Weight	Mark	Size at release
<u>1970 Brood year</u>				
2/10/71	79,968	1,568	None	51/lb
2/25/71	94,400	1,852	"	"
4/29/71	100,000	10,000	"	10/lb
5/3/71	81,500	8,800	50,000 LV-RV	10.4/lb
"	71,000	7,100	" Ad-RV	10.0/lb
"	79,560	7,800	None	10.2/lb
5/11/71	78,000	5,200	"	15/lb
"	71,000	4,437	"	16/lb
<u>1971 Brood year</u>				
5/11/71	69,600	24	None	2,900/lb
"	30,160	10.40	"	"
"	"	"	"	"
"	79,750	27.5	"	"
"	90,300	26.25	"	3,440/lb
"	76,125	"	"	2,900/lb
5/28/71	49,300	17.0	"	"
"	29,700	9	"	3,300/lb
"	39,600	12	"	"
6/1/71	417,450	126.5	"	"
"	135,300	41	"	"

Planting 1971 Brood Year Surplus Steelhead Fingerlings

Between May 11, 1971, and June 7, 1971, 1,047,445 surplus steelhead fingerlings were planted in the Klamath River and some of its tributaries. (See the following table.)

Date	Number	Stream	Location
5/11/71	166,425	S. Fork Salmon R.	T9N, R3W, Sec. 7
"	30,160	N. Russian Creek	T41N, R10W, Sec. 20
"	79,750	E. Fork of S. Fork Sal. R.	T39N, R9W, Sec. 20
"	30,160	Methodist Creek	T39N, R12W, Sec. 31
5/28/71	109,200	N. Fork Salmon R.	T40N, R11W, Sec. 12
"	49,300	Nordheimer Creek	R10N, R7E, Sec. 4
"	29,700	Little N. Fork Salmon R.	T40N, R12W, Sec. 12
6/7/71	552,750	Hatchery outlet	T47N, R5W, Sec. 17

On April 24, 1968, the Department entered into an agreement with the Pacific Power and Light Company and the Oregon Game Commission to rear and release 100,000 yearling steelhead at Iron Gate Hatchery. This was done in an attempt to establish a steelhead fishery on the river between Klamath Falls and Copco Lake which lies just south of the California-Oregon border. When these fish return as adults, a sufficient number will be spawned to rear another 100,000 yearlings, and the marked returning adults not used for egg production will be trucked to the upper Klamath River by the Oregon Game Commission.

This agreement has involved four separate brood years of steelhead; and the rearing and marking phase of the agreement is now concluded. The 50,000 steelhead marked Ad-RV and the 50,000 marked LV-RV are this year's releases for the above agreement. All other steelhead were released unmarked this year.

This year 464 of the marked adult steelhead which had been reared for Oregon were trapped at Iron Gate Hatchery, transported by the Oregon Game Commission, and planted in the Klamath River, above Copco Lake. These fish were the first marked adults to return to the hatchery from the 1968-1969 Oregon cooperative agreement plants.

PUBLIC RELATIONS

During the period of this report, 5,901 persons visited the hatchery. Included in the total were 749 people in many organized groups conducted through the installation.

APPENDIX

- FIGURE A-1 Numbers of king salmon, silver salmon, and steelhead trout trapped, by weeks, at Iron Gate trapping facility, 1970-71 season.
- TABLE A-1 Yearly comparison of fish trapped at Iron Gate Salmon and Steelhead Hatchery, July 1, 1965 through June 30, 1971.
- TABLE A-2 Marked steelhead trapped at Iron Gate Salmon and Steelhead Hatchery, 1970-71 season.
- TABLE A-3 Iron Gate Salmon and Steelhead Hatchery weather, water, and fish data, July 1970 through June 1971.
- through A-14

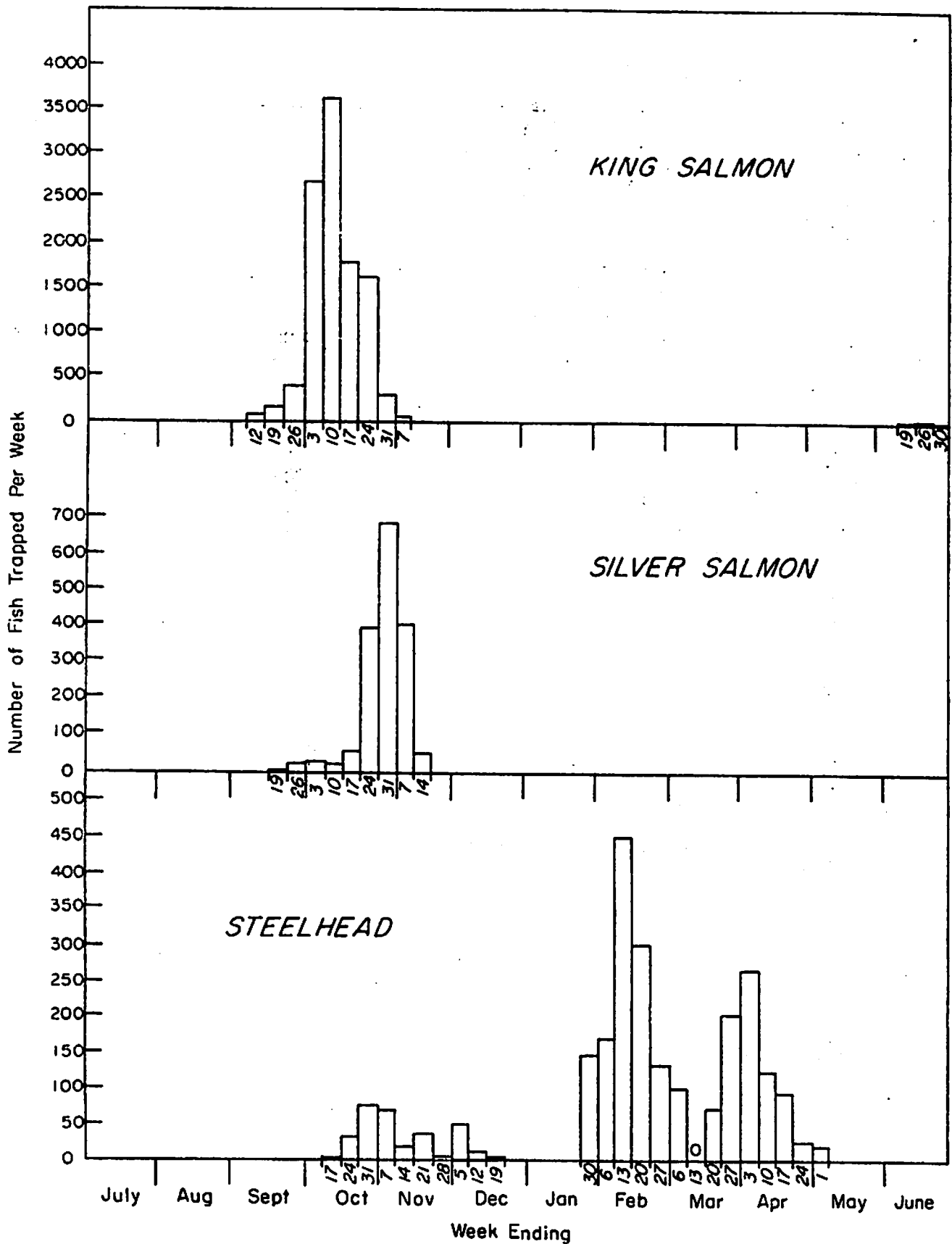


Figure A-1. Numbers of king salmon, silver salmon, and steelhead trout trapped, by weeks, at Iron Gate trapping facility, 1970-71 season.

TABLE A - 1

Yearly Comparison of Fish Trapped at
Iron Gate Salmon and Steelhead Hatchery
July 1, 1965 through June 30, 1971

Species	July 1, 1965 through June 30, 1966	July 1, 1966 through June 30, 1967	July 1, 1967 through June 30, 1968	July 1, 1968 through June 30, 1969	July 1, 1969 through June 30, 1970	July 1, 1970 through June 30, 1971
King Salmon						
Male	141	1,129	850	972	539	2,838
Female	224	1,610	1,275	1,774	474	7,386
Total Adults	365	2,739	2,125	2,686	1,013	10,274
Grilse	313	325	562	78	1,917	219
Total	678	3,064	2,687	2,764	2,930	*10,503
Silver Salmon						
Male	2	2	27	14	84	716
Female	0	2	24	10	118	671
Total Adults	2	4	51	24	202	1,387
Grilse	0	0	28	333	749	236
Total	2	4	79	357	951	1,623
Steelhead						
Spring Trap					813	2,073
Fall Trap					381	292
Total Adults	227	299	984	370	1,194	2,365

* This total includes 10 adult king salmon trapped between June 15, 1971 and June 30, 1971. We are unable to determine the sex at this time.

TABLE A - 2

Marked Steelhead Trapped at
Iron Gate Salmon and Steelhead Hatchery
1970-71 season

Mark	Brood Year	No. Released	Date Released	Size at Release	Release Site	Total Fall Trap	Total Spring Trap	Total 70/71
Ad	1967	25,688	5/68	8/1b	Iron Gate H.	60	497	557
Ad-tag	Oregon Fish Commission's dart tag #06900 Female 19"					1	0	1
Ad-RV	1968	36,524	5/69	9.8/1b	Iron Gate H.	24	55	79
Ad-LV	1968	73,330	6/69	12/1b	" " "	24	63	87
RM	1966	50,000	11/67	6.9/1b	Trinity River H.	17	0	17
LM	1966	12,503	4/67	5.6/1b	" " "	31	0	31
LV	1966	100,000	5/67	4.4/1b	" " "	2	0	2
RV	1966	27,057	3/67	8.17/1b	" " "	3	0	3
Ad-RM	1968	37,575	5/69	9.6/1b	Iron Gate H.		0	
Ad-LM	1968	35,954	5/69	9.1/1b	Happy Camp	8	5	13
LV-LM	1967	30,771	4/68	6/1b	Trinity River H.	1	0	1
AM-LM	1967	49,935	11/68	3.8/1b	Iron Gate H.	3	77	30
AM-RV	1967	40,000	5/68	7"	Wizard Falls H. C.G.C.	0	2	2
AM-LV	1967	85,000	5/68	7"	" "	0	2	2
TOTALS						187	701	888

TABLE --3

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
July 1970

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	88	46	54	52	clear					
2	90	54	54	52	"					
3	95	57	54	53	"					
4	92	63	54	53	"					
5	90	63	55	52	rain					
6	85	53	54	53	clear					
7	93	53	54	53	"					
8	93	52	55	53	"					
9	97	53	55	54	"					
10	93	54	55	54	"					
11	95	57	55	54	pty cloudy					
12	89	53	56	54	clear	2				
13	91	50	56	49	"					
14	104	50	50	49	"					
15	102	60	52	49	"					
16	91	55	53	51	"					
17	95	52	53	51	"					
18	98	54	53	51	"					
19	100	60	54	51	"					
20	99	59	52	51	"					
21	82	57	54	51	"					
22	86	47	54	52	"					
23	94	50	54	52	"					
24	91	53	54	52	"					
25	93	52	54	52	"					
26	90	52	54	52	"					
27	94	57	54	54	"					
28	84	53	53	53	"					
29	86	48	53	53	"					
30	90	50	53	53	"					
31	92	52	53	53	"					
Totals						2	-	-	-	-

TABLE A-4

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
August 1970

Date	Temperature F				Weather	Fish Trapped*			
	Air		Water			King Salmon		Silver Salmon	
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse
1	88	53	53	53	Clear				
2	91	52	53	51	"				
3	98	50	53	51	"				
4	94	55	53	50	"				
5	91	51	54	51	"				
6	91	50	54	51	"				
7	83	50	53	51	"				
8	88	48	54	51	"				
9	97	50	53	51	"				
10	101	53	53	52	"				
11	100	62	52	51	"				
12	94	64	53	51	"				
13	89	52	54	51	"				
14	94	51	54	51	"				
15	101	53	53	51	"				
16	102	56	53	52	"				
17	94	53	52	51	"				
18	95	52	54	51	"				
19	93	51	54	51	"				
20	93	52	54	51	"				
21	96	52	54	51	"				
22	94	54	54	52	"				
23	91	46	53	51	Pty cloudy				
24	91	46	53	52	Clear				
25	91	47	54	51	"				
26	91	47	54	52	"				
27	92	47	54	51	"				
28	92	50	53	50	"				
29	96	52	53	50	"				
30	93	55	53	50	"				
31	89	45	53	50	"				

* Trap was used all month

TABLE A-5

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
September 1970

Date	Temperature F				Weather	Fish Trapped					
	Air		Water			King Salmon		Silver Salmon			
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse		
1	86	52	52	51	Clear						
2	79	45	53	51	"						
3	86	43	53	50	Cloudy						
4	60	52	53	51	Rain						
5	65	45	53	51	Cloudy						
6	73	56	53	52	Pty cloudy						
7	86	48	52	51	Clear	4	1				
8	78	54	53	51	"						
9	87	41	53	51	"	1					
10	90	45	53	51	"	10					
11	84	47	53	51	"	22					
12	70	43	54	52	"	15					
13	65	42	54	52	"	24					
14	83	30	54	52	"	12					
15	80	36	53	52	"	5	1				
16	84	38	53	52	"	5					
17	87	42	54	52	"	14					1
18	78	57	54	52	"	30					1
19	71	50	54	52	Pty Cloudy	79					1
20	70	48	53	52	"	15					1
21	74	37	54	53	"	4		1			1
22	82	38	54	52	Clear	13					
23	79	47	54	52	"	49					
24	71	34	54	53	"	72		1			1
25	81	33	57	54	"	156					
26	87	33	54	53	"	54					4
27	90	32	55	53	Pty cloudy	78					
28	87	38	55	54	"	44					3
29	88	39	56	54	"	401					3
30	85	39	56	54	"	528					2
Totals						1,649		2		50	24

TABLE A-6

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
October 1970

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	89	38	56	54	Clear	444	15		9	
2	89	37	56	55	"	484	13		1	
3	90	38	57	55	"	582	12			
4	88	40	56	55	"	1,028	26			
5	67	49	57	54	Pty Cloudy	452				
6	57	36	57	56	" "	597				
7	67	28	56	55	" "	436				
8	76	28	57	55	Clear	303		5		
9	74	38	57	56	Pty Cloudy	272		5		
10	78	30	57	56	Clear	496		5		
11	83	35	57	56	Clear	423	20		10	
12	76	51	56	56	"	502				
13	76	29	57	56	"					
14	78	37	57	56	"	334		14		
15	79	35	57	55	"	276				
16	79	33	56	55	"	197		30		2
17	75	30	56	56	Cloudy					
18	70	49	56	56	Rain	400		28		3
19	60	40	56	56	Cloudy					
20	59	45	56	55	"	482		80	8	
21	51	39	55	55	Rain	226	38	65		8
22	54	28	55	55	Cloudy	73	34	60		2
23	55	46	55	54	Rain	213	10	64	13	5
24	55	32	55	54	Pty Cloudy	100		63		12
25	53	39	54	54	Rain	73		56		8
26	52	26	54	54	Clear					
27	61	22	54	52	Pty Cloudy					
28	64	24	53	52	Clear	137		208	43	29
29	64	29	53	52	Cloudy	27		90	20	6
30	64	29	53	52	"	39		135	27	20
31	68	42	53	52	Clear	13		91	14	14
Totals						8,609	168	999	150	109

TABLE A- 7

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
November 1970

Date	Temperature F				Weather	King Salmon		Fish Trapped		Steelhead Trout
	Air		Water			Adults	Grilse	Silver Salmon		
	Maximum	Minimum	Maximum	Minimum				Adults	Grilse	
1	68	36	53	51	Clear	11		93	30	20
2	68	40	52	51	"	5		65	14	15
3	58	35	50	50	Cloudy			69	6	8
4	64	36	50	50	Rain			65		13
5	60	45	50	50	Cloudy			22	5	10
6	54	41	50	49	Rain					
7	56	44	49	49	Cloudy			28		7
8	54	52	49	49	Rain					
9	56	44	49	48	"			20	5	2
10	52	42	49	48	"					
11	52	33	49	48	"					
12	57	32	49	48	"			15	2	3
13	58	25	49	48	"					
14	52	33	49	48	Cloudy			9		12
15	60	33	48	47	"					
16	60	35	48	47	Pty Cloudy					
17	58	28	48	47	Clear					11
18	48	30	47	47	Cloudy					5
19	54	30	47	46	Clear					13
20	47	26	47	46	Cloudy					
21	48	32	46	46	"					
22	48	40	46	45	"					
23	49	40	46	45	Rain					2
24	50	48	45	45	"					
25	50	42	45	44	"					1
26	45	35	45	45	Cloudy					
27	43	32	45	44	Snow					
28	45	33	44	44	Cloudy					
29	46	35	44	43	"					13
30	50	38	44	43	Rain					
Totals						16	-	386	62	140

TABLE A- 3

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
December 1970

Date	Temperature F				Weather	King Salmon		Fish Trapped		Steelhead Trout
	Air		Water			Adults	Grilse	Silver Salmon		
	Maximum	Minimum	Maximum	Minimum				Adults	Grilse	
1	46	27	44	43	Rain					
2	47	27	44	43	"					10
3	39	30	42	42	Snow					7
4	42	31	42	42	Rain					
5	48	30	42	42	Cloudy					
6	56	36	42	42	"					19
7	55	35	41	41	Rain					
8	40	35	41	40	"					
9	45	33	40	39	Cloudy					
10	48	28	39	39	Pty Cloudy					
11	50	27	39	39	Clear					
12	43	24	39	39	Snow					5
13	45	30	39	39	Pty Cloudy					
14	47	34	39	38	Cloudy					
15	45	32	39	38	"					
16	40	33	38	37	"					
17	42	28	38	37	"					2
18	39	26	37	37	Pty Cloudy					
19	34	15	37	37	Clear					
20	39	20	37	37	Cloudy					
21	43	20	37	37	Snow					
22	42	29	37	37	"					
23	42	30	37	36	Cloudy					
24	36	17	37	36	Pty Cloudy					
25	37	15	37	36	" "					
26	35	13	37	36	Cloudy					
27	39	24	37	36	"					
28	46	31	37	36	Rain					
29	51	30	37	35	Rain					
30	50	34	37	35	Cloudy					
31	40	35	36	35	"					
Totals										

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Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
January 1971

Date	Temperature F		Water		Weather	Fish Trapped			
	Air		Water			King Salmon		Silver Salmon	
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse
1	40	38	36	35	Cloudy				
2	38	16	35	34	Clear				
3	36	10	35	35	"				
4	37	14	35	34	"				
5	37	11	36	35	"				
6	39	13	35	35	"				
7	46	14	35	35	"				
8	50	21	35	35	"				
9	50	32	35	34	Rain				
10	50	40	35	34	"				
11	46	32	34	35	"				
12	38	20	36	35	Cloudy				
13	35	19	35	35	Cloudy				
14	35	19	35	35	"				
15	46	28	35	35	Snow				
16	46	26	35	34	Snow				
17	46	40	35	34	"				
18	47	37	35	35	Cloudy				
19	56	43	34	34	Rain				
20	47	30	36	35	Cloudy				
21	42	19	35	35	"				
22	45	20	36	35	"				
23	49	21	36	35	"				
24	48	25	36	35	"				
25	48	25	37	36	"				
26	54	22	36	36	Pty Cloudy				
27	56	23	37	36	Clear				
28	56	23	37	36	Pty Cloudy				
29	57	22	38	37	Clear				
30	53	23	38	37	"				
31	57	22	38	37	"				
Totals			38	37					

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Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
February 1971

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	58	22	33	37	Clear					69
2	45	35	39	38	Pty Cloudy					
3	47	16	39	37	Cloudy					96
4	52	34	39	38	"					
5	55	38	38	38	"					
6	56	29	39	38	Clear					
7	57	21	39	38	"					
8	58	20	39	38	Pty Cloudy					293
9	52	24	39	38	Cloudy					
10	68	34	39	38	Clear					
11	68	28	41	40	"					82
12	59	31	41	40	Pty Cloudy					
13	61	26	41	40	" "					75
14	56	28	41	40	Cloudy					
15	54	35	41	40	Pty Cloudy					69
16	54	23	41	40	" "					73
17	50	28	41	41	" "					27
18	48	20	42	42	Rain					
19	47	22	42	41	Clear					
20	50	18	41	41	"					131
21	47	23	42	41	Cloudy					
22	50	23	41	41	Rain					73
23	50	22	41	41	Cloudy					
24	54	22	41	41	"					
25	42	26	42	41	Snow					59
26	45	16	41	41	"					
27	38	24	41	41	"					
28	42	42	41	41	"					
Totals						-	-	-	-	1,047

TABLE A - 11

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
March 1971

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	41	26	41	41	Clear					47
2	44	18	41	41	Cloudy					19
3	54	30	41	40	"					
4	53	30	41	40	"					18
5	50	25	40	39	Clear					7
6	54	23	40	39	Pty Cloudy					
7	55	38	40	39	" "					
8	56	20	39	39	" "					
9	56	21	39	39	" "					
10	54	32	39	39	Rain					
11	58	36	39	39	"					
12	52	32	39	39	Snow-Rain					
13	49	27	39	38	Cloudy					
14	50	32	39	38	"					
15	52	34	39	37	"					26
16	48	32	39	39	Snow-Rain					
17	44	21	39	39	Cloudy					
18	51	26	39	39	"					46
19	62	23	39	39	Clear					
20	68	25	40	39	"					
21	68	32	40	40	Cloudy					
22	56	43	41	41	"					60
23	59	41	41	41	"					
24	60	36	41	41	"					106
25	47	40	41	41	"					
26	50	38	41	41	"					38
27	54	26	43	42	"					
28	66	36	44	43	"					
29	68	32	44	43	Pty Cloudy					91
30	52	35	44	44	" "					34
31	60	28	45	44	Clear					53
Totals										545

TABLE A - 12

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
April 1971

Date	Temperature F				Weather	Fish Trapped				Steelhead Trout
	Air		Water			King Salmon		Silver Salmon		
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	68	24	45	45	Clear					
2	64	30	45	44	"					48
3	73	28	45	45	"					39
4	77	30	46	45	"					
5	76	30	45	45	"					40
6	70	38	46	46	Rain					
7	67	39	47	46	"					
8	60	33	47	46	"					
9	59	40	47	45	"					83
10	60	33	48	47	"					
11	59	29	48	48	Cloudy					
12	67	29	48	48	"					33
13	62	42	47	47	"					20
14	64	34	49	48	"					22
15	61	40	49	48	Pty Cloudy					6
16	60	38	49	48	Cloudy					6
17	53	32	49	49	Clear					
18	50	32	49	48	"					
19	70	28	49	49	Cloudy					
20	46	34	49	49	"					22
21	55	30	49	48	Clear					
22	59	34	49	48	Rain					
23	50	28	49	49	"					
24	49	34	49	48	Cloudy					
25	60	34	48	48	Pty Cloudy					
26	67	38	48	48	Clear					19
27	69	34	48	48	Pty Cloudy					
28	70	32	49	48	Clear					
29	74	34	49	48	"					
30	70	38	49	49	Pty Cloudy					
Totals						-	-	-	-	338

TABLE A - 13

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
May 1971

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	74	42	49	48	Cloudy					
2	74	40	49	49	"					
3	64	47	49	48	"					
4	62	44	49	48	"					
5	56	42	53	48	"					
6	74	39	53	49	"					
7	80	48	49	48	"					
8	66	53	49	48	Pty Cloudy					
9	77	41	49	48	" "					
10	84	38	50	49	Clear					
11	83	40	49	48	Rain					
12	76	50	49	48	"					
13	71	37	51	49	Pty Cloudy					
14	73	34	50	49	Clear					
15	77	55	50	49	Pty Cloudy					
16	60	35	51	49	Rain-Hail					
17	63	30	50	49	Clear					
18	66	32	50	49	"					
19	73	33	51	49	Cloudy					
20	60	32	54	50	"					
21	61	33	53	51	"					
22	73	38	53	51	"					
23	82	43	52	51	"					
24	82	43	53	52	Pty Cloudy					
25	70	46	53	51	Rain					
26	70	39	53	50	Cloudy					
27	72	45	53	45	Clear					
28	70	48	53	50	"					
29	64	50	53	50	"					
30	54	34	54	51	Pty Cloudy					
31	50	42	53	51	Rain					
Totals						-	-	-	-	-

TABLE A - 11

Iron Gate Salmon and Steelhead Hatchery
Weather, Water, and Fish Data
June 1971

Date	Temperature F				Weather	Fish Trapped				
	Air		Water			King Salmon		Silver Salmon		Steelhead Trout
	Maximum	Minimum	Maximum	Minimum		Adults	Grilse	Adults	Grilse	
1	64	36	53	52	rain					
2	72	38	54	53	"					
3	73	39	54	52	clear					
4	74	42	54	53	"					
5	80	41	55	53	"					
6	85	45	55	53	"					
7	81	47	55	53	"					
8	84	42	55	53	"					
9	77	40	55	53	cloudy					
10	74	48	56	54	"					
11	76	40	55	52	clear					
12	85	46	54	53	cloudy					
13	77	46	54	53	clear					
14	82	40	56	53	"					
15	79	43	55	54	"	3				
16	79	44	56	54	cloudy					
17	86	44	56	54	"					
18	79	45	56	54	rain					
19	84	52	56	53	"					
20	90	52	56	53	clear					
21	90	50	56	54	"					
22	90	52	56	54	"	2				
23	80	53	56	54	pty cloudy					
24	83	48	56	53	" "					
25	80	58	56	54	rain	5				
26	77	52	55	54	"					
27	69	42	55	54	pty cloudy					
28	72	38	56	54	clear					
29	84	40	56	55	"					
30	85	45	56	55	"		1			
Totals						10	1	-	-	-
GRAND TOTAL						10,286	219	1,387	236	2,365