

STATE OF IDAHO  
DEPARTMENT OF FISH AND GAME  
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IDAHO SALMON AND STEELHEAD  
STATUS REPORT FOR 1979

by

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## SPRING CHINOOK

The 1979 upriver spring chinook run of 51,500 was the all-time low (Fig. 1). Because of this the Columbia River Fisheries Compact did not provide a commercial gill net season below Bonneville Dam. Sport fishing on the Columbia was likewise halted during April and May. The Zone 6 (treaty Indian) fishery that operates between Bonneville and McNary Dams took an estimated 400 early-running spring chinook during the winter treaty fishing season./ The four Columbia River treaty tribes also reported taking 2,121 spring chinook for ceremonial use (Robinson, 1979)

The Corps of Engineers (1980) reported that 7,539 spring chinook crossed Lower Granite Dam on the Snake River, which is the last dam encountered by the run before reaching Idaho.

Due to the alarmingly small number of fish in the run there was no fishing season provided for salmon in Idaho in 1979.

The count of redds in Salmon River drainage trend count areas was the lowest of record (Table 1).

### Artificial Propagation

#### Clearwater River

Over 2.3 million spring chinook were stocked into the Clearwater River system in 1979. This included 1,011,946 smolts, 384,362 fingerlings, and 957,890 fry (Table 2).

Approximately 400 spring chinook returned to Kooskia National Fish Hatchery, compared to more than 2,000 in 1978.

#### Salmon River

The Salmon River system received over 4.2 million hatchery-reared spring chinook in 1979. This included 206,770 fingerlings and 4,055,818 smolts (Table 3).

The return of spring chinook to Rapid River Hatchery totaled 3,054 adults and 350 jacks. The spawntaking yielded 5,648,722 eggs. After eye-up Hayden Creek Hatchery received 806,400 eggs and Kooskia National Fish Hatchery received 330,880 eggs (Parrish, 1980).

With the 1979-80 rearing program the purpose of Hayden Creek Research Station was changed from primarily research to production of spring chinook. The objective will be to pond-rear chinook for release as smolts that are comparable in size to nearby naturally-reared stocks. The 1979-80 program began with 45,700 eyed eggs from Hayden Creek Hatchery adult returnees and 806,400 eyed eggs of Rapid River stock (Beers, 1979).

At Mackay Hatchery rearing of Rapid River stock spring chinook continued for a third year. A release of more than 1 million smolts was made into the upper Salmon River. Sunburn plagued production as it has in the past.

1/, 2/ Personal communication with Oregon Department of Fish and Wildlife.

## SUMMER CHINOOK

The 1979 count of summer chinook over Bonneville Dam, at 34,217, was the lowest ever recorded, as was the 3,572 counted over Lower Granite Dam (Corps of Engineers, 1980). The extremely poor runs of both spring and summer chinook were attributed to critically large losses of downstream migrants in the low river flow year of 1977 (Fig. 3).

Closures were maintained on all fisheries in the Columbia and Snake River systems except for a treaty Indian ceremonial allotment in the mainstem Columbia. This fishery took an estimated 2,060 summer chinook (Robinson, 1979).

We counted an all-time low 219 redds in the summer chinook spawning area trend routes (Table 4).

### Artificial Propagation

The sole summer chinook propagation effort in the Snake River system is at McCall Hatchery. As a part of the Corps of Engineers' Lower Snake River Fish and Wildlife Compensation Plan a summer chinook hatchery was constructed at McCall in 1979. Advance propagation of summer chinook stock for this hatchery has been done in other facilities beginning with the 1974 brood year.

In July, National Marine Fisheries Service and Idaho Department of Fish and Game personnel procured 276 brood fish at Lower Granite Dam. These fish were taken to Dworshak National Fish Hatchery for maturation and spawntaking. About 528,000 eggs were taken for later shipment to the new McCall Hatchery.

In April, 236,670 smolts at 14 per pound were stocked in the South Fork Salmon River. These fish had been reared at Mackay Hatchery from February to April while McCall Hatchery was inoperable due to construction.

## SUMMER STEELHEAD (1978-1979 RUN)

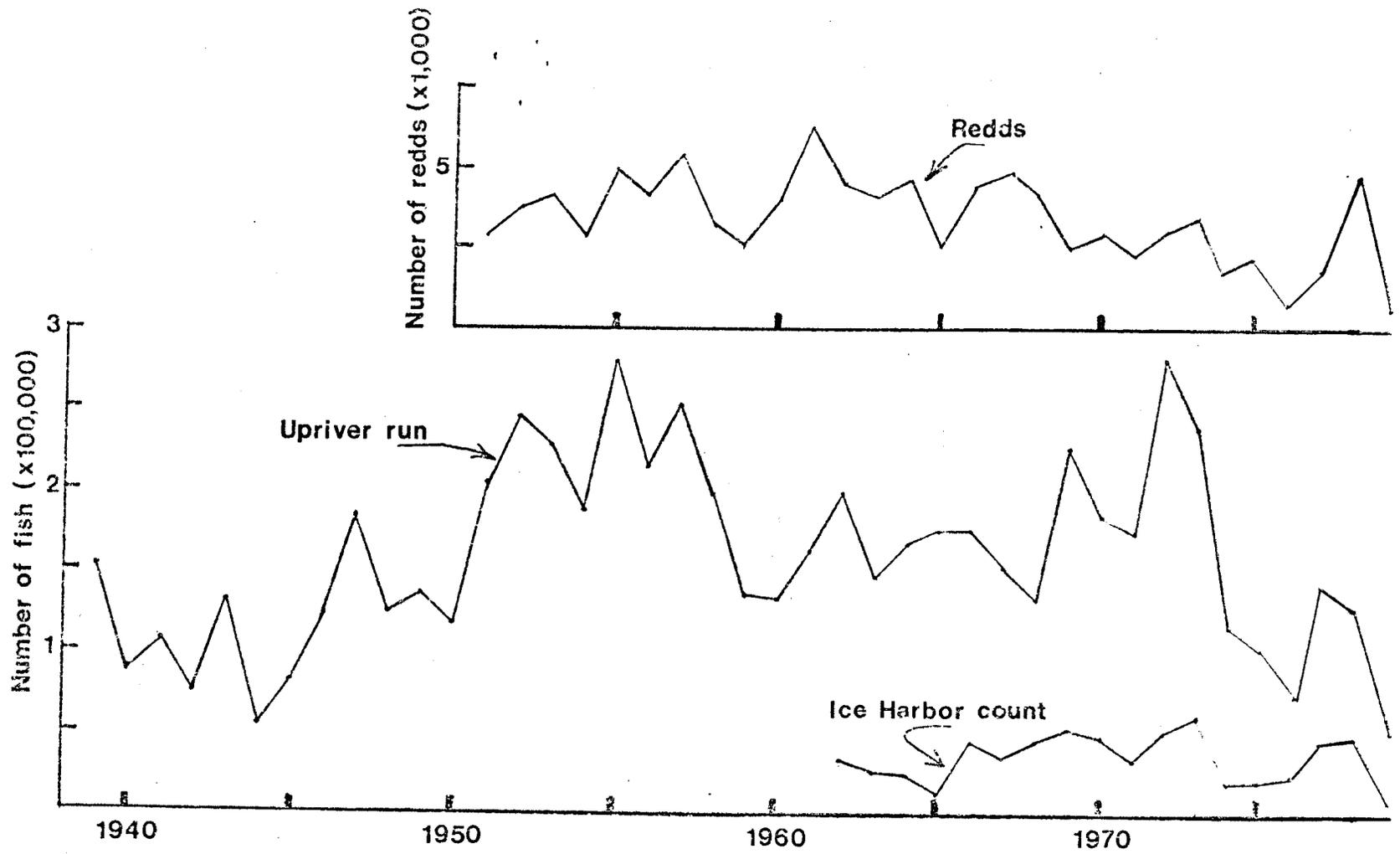
The 1978 run into the Columbia River, at 105,000, was the second smallest of record with only the run of 1975 being smaller. An estimated 2,700 were landed in the Columbia River sport fishery and 15,800 in the treaty Indian commercial fishery (Oregon Department of Fish and Wildlife and Washington Department of Fisheries, 1979).

The run totaled 26,305 over Lower Granite Dam (Fig. 4). In the fall of 1978 steelhead fishing on the Snake River, Clearwater River, North Fork Clearwater River and Salmon River was restricted to catch-and-release. The spring 1979 fishery was structured to obtain a harvest of steelhead that predominantly were returning to Dworshak and Pahsimeroi Hatcheries. The sport harvest of steelhead from the 1978-79 run was estimated at 3,096 (Ortmann, 1980).

### Artificial Propagation

#### Clearwater River

A run of 4,940 adult steelhead returned to Dworshak National Fish Hatchery. An additional 4,610 fish of Dworshak National Fish Hatchery origin were estimated to have been caught by sport anglers in the lower Clearwater River (Pettit and Lindland, 1979).



## SPRING CHINOOK

Figure 1. Columbia River spring chinook salmon upriver run size, Ice Harbor Dam counts, and Idaho redd count trend.

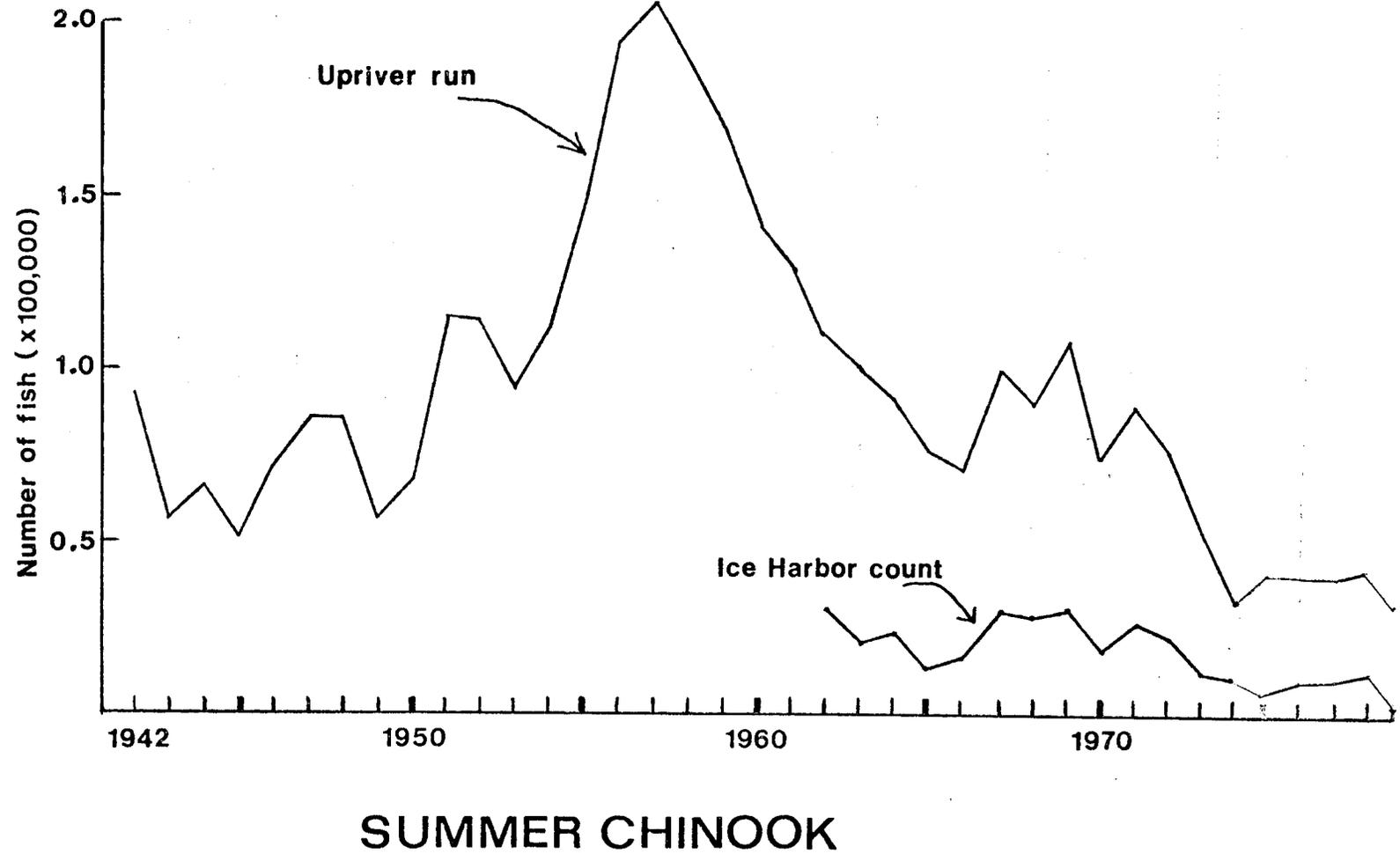


Figure 2. Columbia River summer chinook salmon upriver run size and Ice Harbor Dam counts.

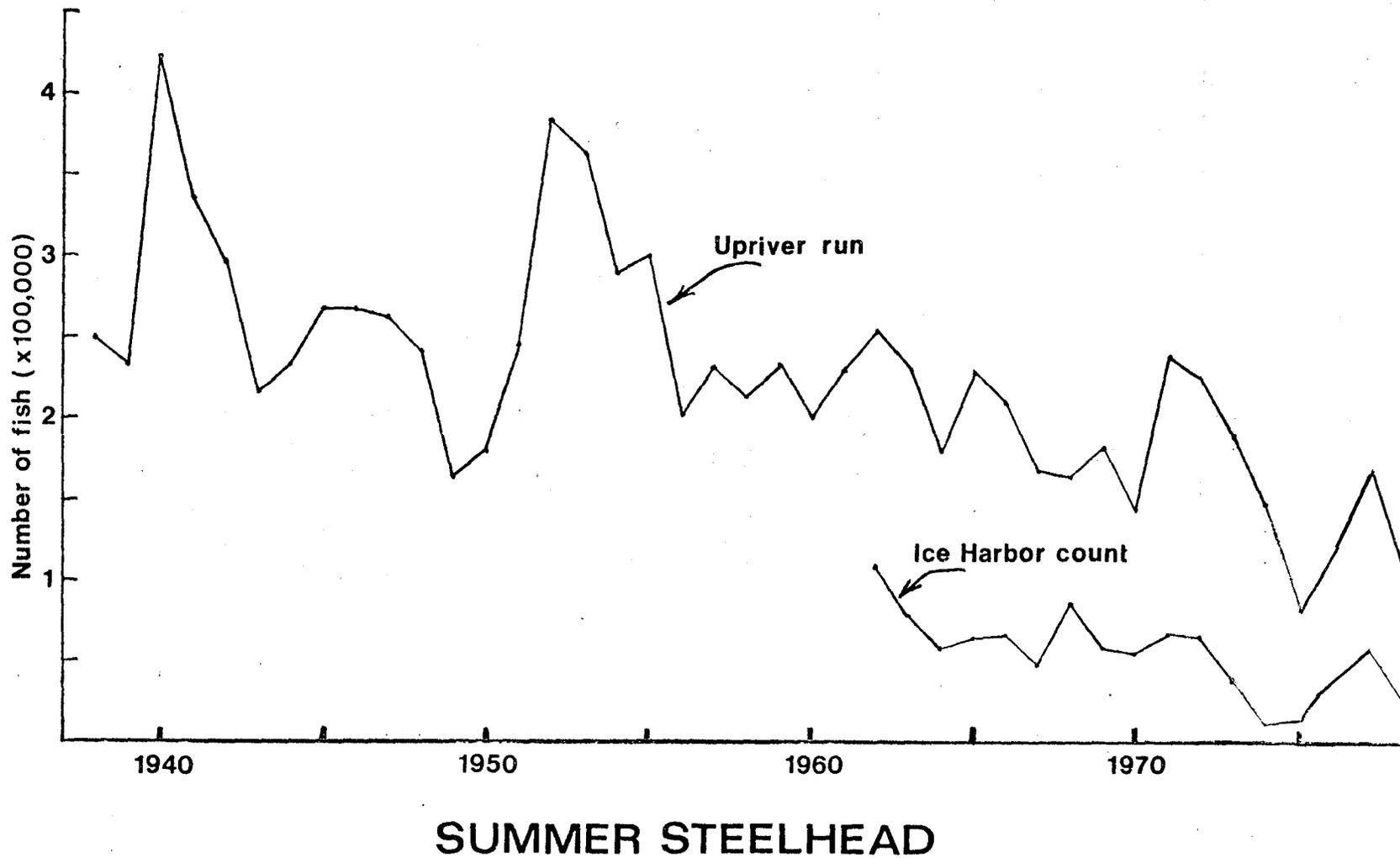


Figure 3 . Columbia River summer steelhead upriver run size and Ice Harbor Dam counts.

Table 1. Numbers of spring chinook redds counted in Salmon River drainage trend areas, 1970-1979.

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Stream	Year									
	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
Alturas Lake Creek	29	303	85	16	60	42	153	143	50	68
Bear Valley Creek	69	184	129	76	215	130	387	221	108	334
Elk Creek	49	208	86	61	169	108	369	212	173	302
Herd Creek	2	26	98	48	11	13	47	28	49	47
Lemhi River	154	796	474	241	366	215	485	507	407	371
Marsh Cr. Drainage	47	270	98	48	201	210	518	312	281	456
NF Salmon River	nc	29	31	6	14	18	55	31	53	95
Sulphur Creek	15	64	5	14	50	30	78	71	58	93
Upper East Fork	57	841	168	75	348	346	665	448	370	468
Upper Salmon River	205	1,707	698	378	509	338	414	748	619	432
Upper Valley Creek	25	141	18	nc	189	127	125	182	89	202
Upper Yankee Fork	18	33	6	40	60	54	104	115	57	67
Upper Big Creek	<u>15</u>	95	9	<u>22</u>	77	<u>28</u>	<u>96</u>	60	32	<u>68</u>
Totals	685	4,697	1,905	1,025	2,269	1,659	3,496	3,078	2,346	3,00

Table 2. Spring chinook stocking summary, Clearwater River drainage, 1979.

Stocking area	Number	Size	Rearing facility
Clear Creek	967,573	Smol is	Kooski a NFH
Deep Creek	224,160	Fry	Indian Creek Channel
Lochsa River	156,362	Fingerling	Rapid River
Red River	228,000	Fingerling	Red River Pond
SF Clearwater	44,373	Smol is	Rapid River
Selway River	537,050	Fry	Indian Creek Channel
Ten Mile Creek	10,000	Fry	Rapid River
Whitcap Creek	<u>186,680</u>	Fry	Indian Creek Channel
Total	2,354,198		

Table 3. Spring chinook stocking summary, Salmon River drainage, 1979.

Stocking area	Number	Size	Rearing facility
Hayden Creek	176,528	Smolts	Hayden Creek Research Station
Rapid River	206,770	Fingerling	Rapid River
Rapid River	2,866,993	Smolts	Rapid River
Salmon River	<u>1,012,297</u>	Smolts	Mackay
Total	4,262,588		

Table 4. Numbers of summer chinook redds counted in Salmon River drainage trend areas, 1970-1979.

Stream	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970
Lower Salmon River	nc	349	94	44	45	40	224	412	220	150
Lower Valley Creek	15	219	63	43	80	45	77	39	147	41
Lower East Fork	33	nc	136	39	38	49	138	161	149	123
Loon Creek	nc	29	62	31	32	47	78	150	79	43
SF Salmon River	115	251	226	241	238	218	586	577	421	527
Johnson Creek	36	113	81	68	69	107	271	220	183	130
Secesh R. -Lake Creek	20	91	27	17	10	21	62	87	80	63
Totals	219	1,052	689	483	512	527	1,436	1,646	1,279	1,077

Table 5. Steel head stocking summary, Clearwater River drainage, 1979.

Stocking area	Number	Size	Rearing facility
NF Clearwater River	1, 227, 312	Smol ts	Dworshak NFH
Clearwater River	481, 288	Fingerlings	Dworshak NFH
Potlatch Creek	170, 000	Fry	Dworshak NFH
Lolo Creek	379, 236	Fry	Dworshak NFH
Lochsa River	800, 152	Fry	Dworshak NFH
SF Clearwater River	500, 000	Fry	Dworshak NFH
Meadow Creek	275, 800	Fry	Dworshak NFH
Red River Incubation Channel	<u>788, 500</u>	Eyed Eggs	Dworshak NFH
Total	4, 622, 288		

Table 6. Steel head stocking summary, Salmon River drainage, 1979.

Stocking area	Number	Size	Rearing facility
Alturas Lake Creek	98,920	Fry	Hayspur
Basin Creek	114,070	Fry	Hayspur
Bear Valley Creek (Lemhi River)	112,050	Fry	Hayden Creek
Hayden Creek	50,400	Fry	Hayden Creek
Hayden Creek	59,292	Smolts	Hayden Creek
Hughes Creek	32,600	Fry	Hayden Creek
Indian Creek	71,720	Fry	Hayden Creek
Iron Creek	90,759	Fry	Hayden Creek
Lemhi River	149,960	Fry	Hayden Creek
Lemhi River	309,227	Smolts	Hagerman NFH
NF Salmon River	120,620	Fry	Hayden Creek
Owl Creek	17,604	Fry	Hayden Creek
Pahsi meroi River	10,800	Fry	Pahsi meroi
Pahsi meroi River	1,489,972	Smolts	Niagara Springs
Pine Creek	39,120	Fry	Hayden Creek
Sheep Creek	48,900	Fry	Hayden Creek
Slate Creek	80,000	Fry	Hayspur
Squaw Creek	100,000	Fry	Hayspur
Thompson Creek	60,000	Fry	Hayspur
Valley Creek	120,780	Fry	Hayspur
W Fk. Yankee Fork	100,080	Fry	Hayden Creek
Yankee Fork	<u>208,800</u>	Fry	Hayden Creek
Total	3,485,674		

## APPENDIX

APPENDIX

Table 1. Estimated sport catch of chinook salmon and steel head, Idaho, 1954 to 1979.

Year	Chinook salmon catch	Steel head catch
1954	15,000	12,000
1955	19,000	13,000
1956	21,000	8,000
1957	39,000	20,000
1958	24,000	30,000
1959	20,000	31,000
1960	21,000	30,000
1961	13,000	25,000
1962	12,000	19,000
1963	12,000	26,000.
1964	8,000	18,000
1965	SEASON CLOSED	19,500
1966	8,500	20,500
1967	6,500	22,500
1968	10,000	23,000
1969	11,500	15,500
1970	5,500	20,500
1971	3,500	17,500
1972	6,500	13,500
1973	9,500	10,500
1974	1,500	3,000
1975	SEASON CLOSED	SEASON CLOSED
1976	SEASON CLOSED	2,000 <u>1/</u>
1977	3,500	13,000
1978	7,000	11,500
1979	SEASON CLOSED	5,500

1/ Catch occurred in fall on 1976-1977 run. There was no catch of the 1975-76 run.

Table 2. Anadromous fish stocking in Idaho, 1960-1979.

Year	Description	Spring chionook	Summer chionook	Fall chionook	Coho	Steel head
1979	Fish	6,616,786	236,670	--	--	7,319,462
	Eyed eggs	--	--	--	--	788,500
	Total	6,616,786	236,670	--	--	8,107,962
1978	Fish	9,088,659	297,500	--	--	9,383,906
	Eyed eggs	1,250,000	--	--	--	1,618,000
	Total	10,338,659	297,500	--	--	11,001,906
1977	Fish	7,731,369	481,842	--	--	8,190,952
	Eyed eggs	1,037,340	--	--	--	--
	Total	8,768,709	481,842	--	--	8,190,952
1976	Fish	6,389,000	519,952	--	--	4,281,807
	Eyed eggs	1,400,000	--	--	--	--
	Total	7,789,000	519,952	--	--	4,281,807
1975	Fish	6,425,107	114,560	--	--	3,913,651
	Eyed eggs	--	--	--	--	--
	Total	6,425,107	114,560	--	--	3,913,651
1974	Fish	4,912,600	330,000	--	--	6,627,898
	Eyed eggs	2,207,000	--	--	--	--
	Total	7,119,600	330,000	--	--	6,627,898
1973	Fish	4,725,852	217,100	--	--	12,986,027
	Eyed eggs	3,511,544	--	--	--	--
	Total	8,237,396	217,100	--	--	12,986,027
1972	Fish	5,535,446	231,690	--	--	5,529,973
	Eyed eggs	3,047,372	--	--	--	--
	Total	8,582,818	231,690	--	--	5,529,973
1971	Fish	3,626,790	400,318	--	--	3,617,598
	Eyed eggs	2,423,000	--	--	--	256,000
	Total	6,049,790	400,318	--	--	3,873,598
1970	Fish	3,618,647	--	--	--	2,473,555
	Eyed eggs	7,578,917	--	--	--	2,007,500
	Total	11,197,564	--	--	--	4,481,055
1969	Fish	1,316,063	--	497,298	--	2,076,743
	Eyed eggs	1,704,826	--	--	--	700,000
	Total	3,120,889	--	497,298	--	2,776,743
1968	Fish	1,652,788	--	255,536	--	2,508,415
	Eyed eggs	3,680,890	--	--	2,000,000	963,340
	Total	5,333,678	--	255,536	2,000,000	3,471,755
1967	Fish	465,736	--	202,350	--	2,355,263
	Eyed eggs	2,014,460	--	1,548,000	3,066,000	848,455
	Total	2,480,196	--	1,750,350	3,066,000	3,183,718
1966	Fish	583,883	--	2,061,507	--	142,769
	Eyed eggs	2,029,000	--	1,500,000	3,000,000	480,598
	Total	2,612,883	--	3,561,507	3,000,000	623,367

Table 2 (Cont'd). Anadromous fish stocking in Idaho, 1960-1979.

Year	Description	Spring chinook	Summer chinook	Fall chinook	Coho	Steel head
1965	Fish	--	--	214,720	--	24,291
	Eyed eggs	635,000	--	--	1,180,000	249,682
	Total	635,000	--	214,720	1,180,000	273,973
1964	Fish	--	--	2,282,555	--	--
	Eyed eggs	2,211,000	--	1,000,000	1,000,000	390,897
	Total	2,211,000	--	3,282,555	1,000,000	390,897
1963	Fish	--	--	495,540	--	--
	Eyed eggs	1,860,000	--	1,000,000	500,000	484,000
	Total	1,860,000	--	1,495,540	500,000	484,000
1962	Fish	--	--	--	--	--
	Eyed eggs	2,070,000	--	400,000	100,000	102,000
	Total	2,070,000	--	400,000	100,000	102,000
1961	Fish	--	--	--	--	--
	Eyed eggs	1,455,000	--	750,000	--	--
	Total	1,455,000	--	750,000	--	--
1960	Fish	--	--	--	--	--
	Eyed eggs	--	--	535,000	--	--
	Total	--	--	535,000	--	--

In the spring of 1979 Dworshak National Fish Hatchery released over 1.2 million smolts into the North Fork Clearwater River. Dworshak National Fish Hatchery also provided nearly 3.4 million steelhead sub-smolts and eyed eggs for the Clearwater drainage (Table 5).

#### Salmon River

Nearly 1.5 million 1978 brood year steelhead smolts were trucked from Idaho Power Company's Niagara Springs Hatchery and into the Pahsimeroi River in the spring of 1979. There were 2,501 adult steelhead that returned to the Pahsimeroi River weir in 1979. The 1978-79 run is estimated to have contributed 450 fish to the upper Salmon River fishery in the spring of 1979 (Reingold, 1980).

In all, there were nearly 3.5 million steelhead stocked in the Salmon River drainage in 1979. This included 1,858,491 smolts and 1,627,183 fry (Table 6).

#### Snake River

From 15 September 1978 to 29 May 1979, a total of 27 adult steel head were trapped at Hells Canyon Dam. There were 134,122 eggs taken for rearing at Niagara Springs Hatchery (John Siple, inter-department correspondence).

In the fall of 1979, Niagara Springs Hatchery stocked the Snake River below Hells Canyon Dam with 343,427 fingerling steelhead of the 1979 brood year.

#### FALL CHINOOK

A small run of 1,437 fall chinook was counted over Lower Granite Dam in 1979. Smaller runs have occurred in only two previous years, 1974 and 1976.

Two fall chinook jacks were trapped at Hells Canyon Dam in the fall of 1979.

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rn Table 1. Numbers of spring chinook redds counted in Salmon River drainage trend areas, 1970-1979.

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