



**CABINET GORGE FISH HATCHERY
F-81-D-5**

By:

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Abstract

Cabinet Gorge Hatchery, in its tenth year of operation, took 16,613,806 late kokanee green eggs from Sullivan Springs and Cabinet Gorge traps. A total of 14,050,457 late kokanee, averaging 2.13 inches, were released from Cabinet Gorge Hatchery into the Pend Oreille drainage using three release strategies in June and July 1995.

WATER SOURCE

Water temperatures varied throughout the production cycle with similar trends of past years. The colder water from the lower well field was used to incubate eggs until mid-December when additional water was needed. At that time we mixed the upper and lower well fields to incubate and feed train kokanee near 50 Fahrenheit. Rearing water temperatures ranged from 40.5 F to 51.5 F during the production period. (Table 1).

Table 1. Cabinet Gorge, BY-94, beginning monthly water temperatures in Fahrenheit.

WATER SOURCE	MONTH								
	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.
INCUBATION	46.0	48.0	50.5	50.0	49.0	48.0	48.5	45.5	50.0
PRODUCTION			51.5	45.0	41.5	40.5	40.5	44.5	50.0

KOKANEE SPAWNING OPERATIONS

A total of 16,613,806 eggs were taken from the Sullivan Springs and Cabinet Gorge fish traps.

The Sullivan Springs fish trap was in operation from October 24, 1994 to January 6, 1995. Spawntaking began on November 1 and continued through January 6, 1995. The largest daily egg was approximately 971,000 and was taken on November 28.

A total of 8,120 kokanee were allowed to pass upstream above the Sullivan Springs trap to spawn naturally and assure a future egg supply. All spawned fish were discarded into the Granite Creek side of the Sullivan Springs trap.

The Cabinet Gorge ladder was in operation from October 12, 1994 to January 10, 1995. Spawntaking began on November 8 and continued through January 9, 1995. The run peaked in late November, but fish continued to come in until early January. The largest daily egtake was 811,652 taken on November 29.

FISH PRODUCTION

A total of 40,450 pounds of BY-94 kokanee averaging 347.35 fish per pound were produced at the Cabinet Gorge Hatchery and released into the Pend Oreille drainage. Conversion rates varied between raceways with an average conversion rate of .91. (Table 2).

Table 2. Cabinet Gorge, BY-94, late kokanee production summary.

LOT (by release)	FISH PRODUCED	WEIGHT PRODUCED	FOOD FED	WEIGHT GAIN	NUMBER PER POUND	CONVERSION RATE
CFR REL	4,399,821	12,866	10,007	12,098	341.96	.83
SS REL	5,623,176	14,643	12,882	13,615	384.02	.95
PDO REL	4,338,356*	13,556	11,930	12,450	320.03	.96
TOTAL	14,361,353	41,065	34,819	38,163	349.72	.91

* includes 310,896 (615 lbs.) released in other lakes

Survival of green eggs to fry release was calculated at 86.4 percent. Most mortality occurred during the eyeing stage of development with little loss after initial feeding. (Table 3). Kokanee began feeding February 6, and by April 16 all remaining kokanee were on feed. The fish were reared at 42 MTU/IN. growth. Raceway water temperatures were lowered after feed training to emulate natural production in Lake Pend Oreille.

Table 3. Cabinet Gorge, BY-94, late kokanee survivals from green egg to release.

LOT	GREEN EGGS	EYED EGGS	INITIAL FEEDING	NUMBER RELEASED (millions)	SURVIVAL INITIAL FEED	RELEASE
SS	12,536,635	11,718,616	11,508,561	10.970	.918	.875
CF	4,077,171	3,586,479	3,442,599	3.391	.844	.832
	16,613,806	15,305,095	14,951,160	14.3614	.90	.864

FISH MARKING

No fish were marked this year.

FISH LIBERATION

A cross section of kokanee lots was represented in each release strategy to assure a greater gene pool for kokanee surviving to maturity. Releases began in late June when 5.6232 million fry were released into Sullivan Springs. (Table 4). This was followed by a hatchery release into the fish ladder of 4.3998 million fish. In mid July 4.0275 million kokanee were released along the North shore of Lake Pend Oreille.

Table 4. Cabinet Gorge, BY-94, kokanee release summary.

ACTUAL SITE	STRATEGY	DATES	TIME	LENGTH	NUMBER (millions)
GRANITE CREEK	SULLIVAN SPRINGS	6/27-6/29	day	2.06	5.6232
CABINET GORGE Fish Ladder	CLARK FORK RIVER	6/29/95	dusk	2.14	4.3998
NORTH SHORE	OPEN WATER	7/11-7/12	day	2.20	4.0275
OTHER LAKES	OPEN WATER	6/30-7/12	day	2.20	.3109
TOTALS				2.13	14.3614

Submitted by:

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Approved by:

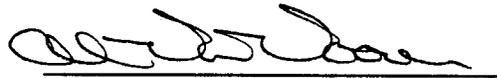
IDAHO DEPARTMENT OF FISH AND GAME



Steven M. Huffaker, Chief
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Funds Expended:

State: \$63,863
Federal: \$191,589
Total: \$255,452



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