

REF 90272

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME

ANNUAL REPORT
MOKELUMNE RIVER HATCHERY 1984-85

by

Don F. Estey
Region 2, Inland Fisheries

Inland Fisheries
Administrative Report No. 87-8
1987

ANNUAL REPORT
MOKELUMNE RIVER HATCHERY 1984-85^{1/}

by

Don F. Estey
Region 2, Inland Fisheries

ABSTRACT

This report describes the operation of the Mokelumne River Hatchery from July 1, 1984 through June 30, 1985. The installation consists of a hatchery building, concrete raceways, and rearing ponds for chinook salmon, Oncorhynchus tshawytscha, and steelhead trout, Salmo gairdneri.

The hatchery received 3,074,200 chinook salmon fingerlings from Feather River Hatchery for release when they reach 30/lb or larger. There were 763,415 chinook salmon fingerlings released during the 1984-85 season.

A total of 150,490 eyed steelhead trout eggs (1985 BY) was received from Nimbus Hatchery. There were 33,716 steelhead yearlings released in the Mokelumne River, and 20,000 yearlings were planted in Lake Merced.

^{1/} Inland Fisheries Administrative Report No. 87-8
Submitted April 1986

INTRODUCTION

This is the 22nd annual report for operation of the Mokelumne River Hatchery. It describes operations of the hatchery from July 1, 1984 through June 30, 1985. Copies of previous annual reports are available upon request from Inland Fisheries Division, Rancho Cordova.

The Mokelumne River Hatchery is located on the south bank of the Mokelumne River at the base of Camanche Dam in San Joaquin County. Camanche Dam is presently the upper limit of anadromous fish migration in the Mokelumne River. The Mokelumne River enters the San Joaquin River about 61 miles downstream from Camanche Dam.

Mokelumne River Hatchery was constructed to compensate for the loss of fall-run chinook salmon and steelhead trout spawning and rearing areas inundated by Camanche Dam. The hatchery is operated by the California Department of Fish and Game. The East Bay Municipal Utility District paid total construction costs of the hatchery and also pays the annual operation and maintenance costs for all mitigation fish. Remaining operational costs are funded by Salmon Stamp Project monies.

This report summarizes the number of fish trapped, eggs received, production of fish, and water temperatures from July 1, 1984 to June 30, 1985.

PRODUCTION SUMMARY

There were 150,490 steelhead eggs received from Nimbus Hatchery for rearing to yearling size, and 3,074,200 chinook salmon fingerlings were received from Feather River Hatchery for rearing to advance fingerling size (Table 1).

TABLE 1. Mokelumne River Hatchery Production Summary, 1984-85

<u>Species</u>	<u>Adults trapped</u>	<u>Eggs Taken or rec'd</u>	<u>Fingerlings received</u>	<u>Advanced fingerlings planted</u>	<u>Yearlings planted</u>	<u>Total pounds planted</u>
<u>Chinook Salmon</u>						
1983-BY	4,573	0	1,518,955	763,415	0	26,650
<u>Chinook Salmon</u>						
1984-BY	959	0	3,074,200	0	0	0
<u>Steelhead</u>						
1984-BY	0	150,000	0	0	53,716	21,370
1985-BY	0	150,490	0	0	0	0
Totals	5,532	300,490	4,593,155	763,415	53,716	46,020

DISEASE

There were no significant mortalities from diseases at the hatchery this season.

CHINOOK SALMON PROGRAM

History of the 1984-85 Season

There were 959 chinook salmon trapped at the hatchery this season; 348 adult males, 456 adult females and 155 grilse (less than 24 in. FL).

All fish entered the hatchery between October 6, 1984 and December 7, 1984 (Appendix Table 1). Eight males and two females with the adipose fin removed, were recovered. Their heads were removed and sent to be checked for coded-wire tags.

Production

On July 1, 1984 there were 1,184,050 chinook salmon fingerlings (1983 BY) on hand. A total of 763,415 advanced fingerlings were released during the season (Table 2). No eggs were taken at the hatchery; all fish were returned to spawn in the river. However, 3,074,200 (1984 BY) fingerlings were received from Feather River Hatchery. On June 30, 1985 there were 2,250,000 (1984-BY) fingerlings on hand.

TABLE 2. Chinook Salmon Plants

Date	Release site	Average size/lb	Number
8/13/84	Maritime Academy	23	56,350
8/13/84	Maritime Academy	40	42,000
8/14/84	Maritime Academy	23	63,250
8/14/84	Maritime Academy	40	42,000
8/15/84	Maritime Academy	23	64,400
8/15/84	Maritime Academy	40	48,000
8/16/84	Maritime Academy	23	69,230
8/16/84	Maritime Academy	40	51,600
8/17/84	Maritime Academy	23	70,035
8/17/84	Maritime Academy	40	52,200
8/20/84	Maritime Academy	27	33,750
8/20/84	Maritime Academy	34	42,500
8/21/84	Maritime Academy	27	20,250
8/21/84	Maritime Academy	34	25,500
8/22/84	Mokelumne River Hatchery	27	36,450
8/22/84	Mokelumne River Hatchery	34	45,900
Total			763,415

Chinook Salmon Tagging Program

No coded-wire tagged fish were released this report period, although 75,000 fish were tagged for release at a later date.

STEELHEAD TROUT PROGRAM

History of the 1984-85 Season

There were no steelhead trapped or eggs taken at the hatchery this season. On March 1, 1985, 150,490 eyed eggs were received from Nimbus Hatchery.

A total of 53,716 yearling fish were released (Table 3) and 117,600 fish were on hand June 30, 1985.

TABLE 3. Yearling Steelhead Trout Plants

Date	Release site	Average size/lb	Number	Pounds
July 1984	Mokelumne River	1.48.	2,960	2,000
August 1984	Mokelumne River	1.5	4,800	3,200
Sept. 1984	Mokelumne River	2.0	16,150	8,075
Feb. 1985	No. Lake Merced	4.0	8,800	2,200
Feb. 1985	So. Lake Merced	4.0	11,200	2,800
May 1985	Mokelumne River	3.4	4,982	1,475
June 1985	Mokelumne River	2.9	4,804	1,620
Totals			53,716	21,370

PUBLIC RELATIONS

During the 1984-85 season 13,765 persons visited the Mokelumne River Hatchery. Tours were conducted for special interest groups and talks given to sports and civic organizations upon request.

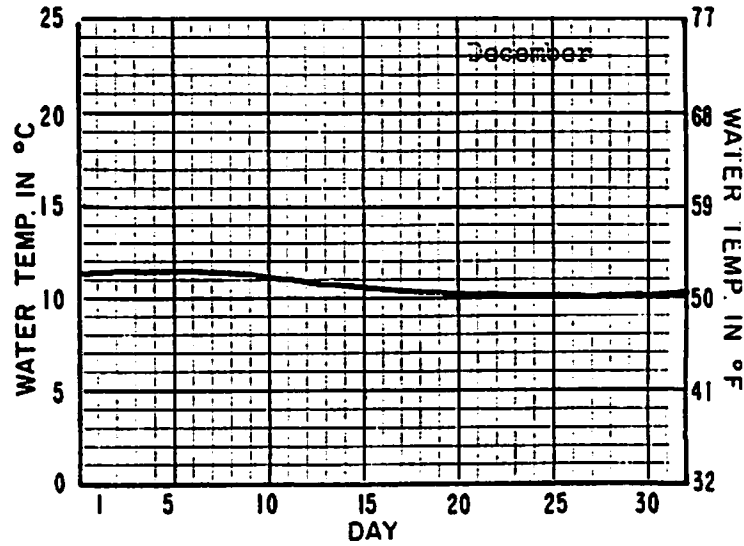
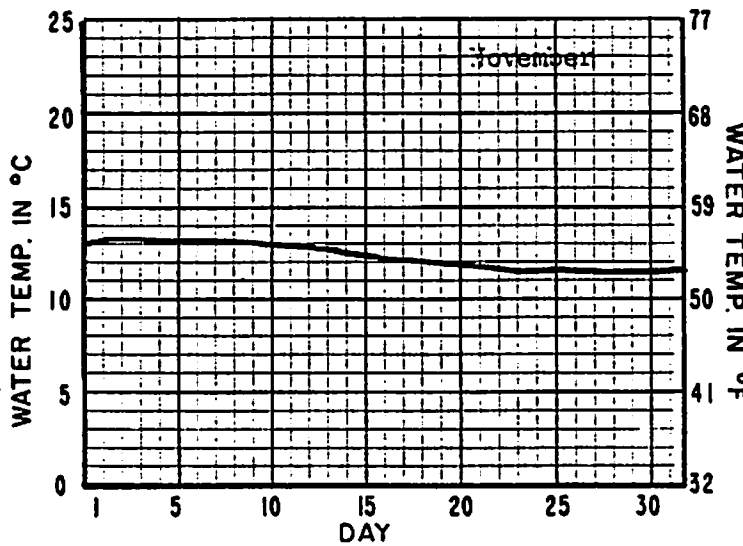
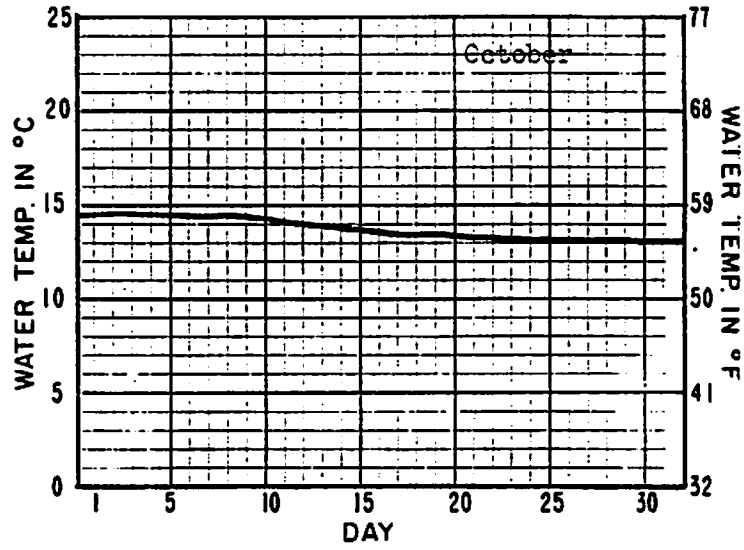
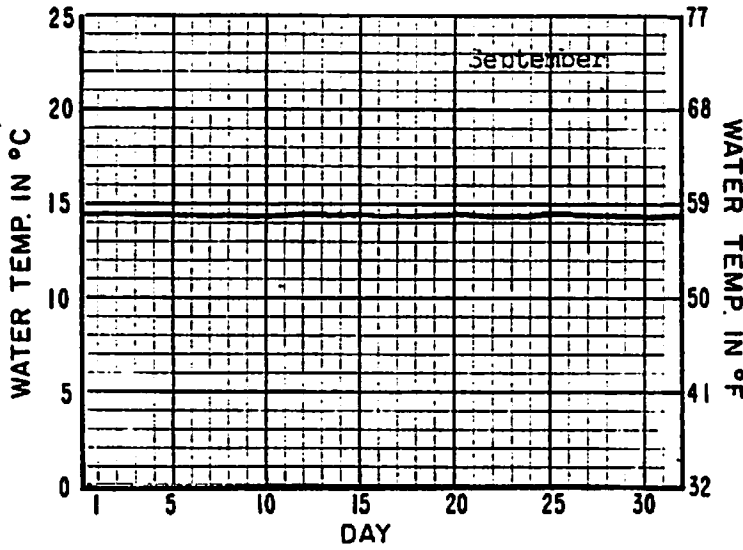
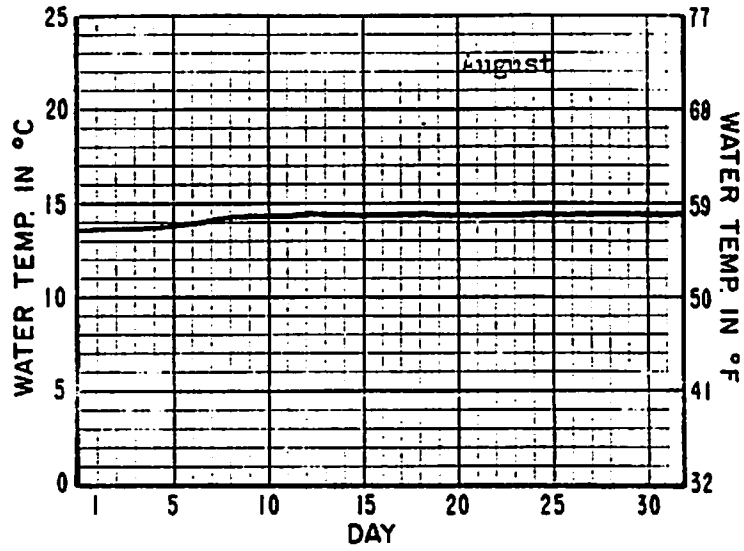
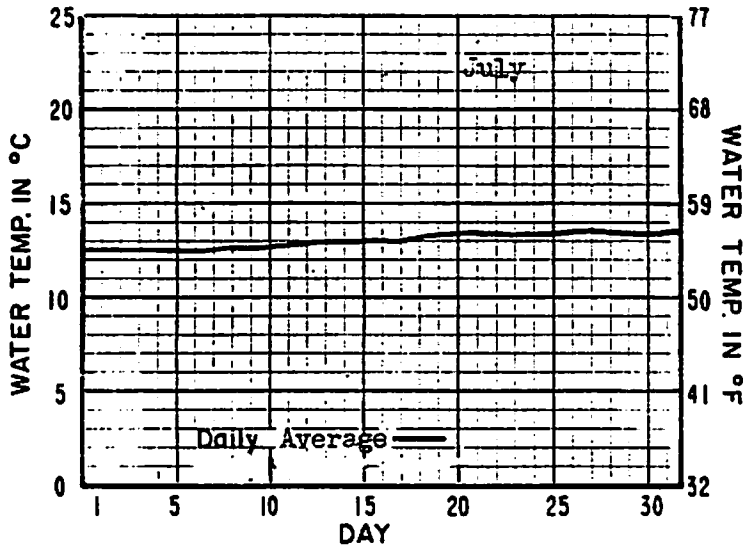
APPENDIX TABLE 1 . Weekly Adult Salmon and Steelhead Trapping Data for Mokelumne River Hatchery, 1984-1985

<u>Week</u>	<u>Chinook salmon</u>		<u>Coho salmon</u>		<u>Steelhead trout</u>	
	<u>Adults</u>	<u>Grilse</u>	<u>Adults</u>	<u>Grilse</u>	<u>Males</u>	<u>Females</u>
October 7-13		4				
October 14-20		2				
October 21-27	17	7				
October 28-Nov. 3	95	31				
November 4-10	81	19				
November 11-17	138	42				
November 18-24	135	16				
November 25-Dec. 1	263	21				
December 2-8	75	13				

Season Totals 804 155

Appendix Figure 1. Daily water temperatures for Mokelumne River Hatchery from July 1, 1984 through June 30, 1985

DAILY WATER TEMPERATURES BY MONTH



Appendix Figure 1 (cont.)

DAILY WATER TEMPERATURES BY MONTH

