



DEPARTMENT OF FISH AND GAME

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601 Locust Street
Redding, CA 96001
(530) 225-2300



July 5, 2000

REF 90420

Mr. Rod McInnis, Acting Regional Administrator
Southwest Regional Office
National Marine Fisheries Service
501 West Ocean Boulevard, Room 4200
Long Beach, California 90802-4213

Dear Mr. McInnis:

Semiannual Performance Reports (SPR) for Study Number One and Two

Enclosed are three copies each of the SPR for study number one (Ocean Salmon Project) and SPR number two (Klamath River Project) of our Salmon and Steelhead Research Management and Enhancement Project (AFC-16, Award Number NA76FA0296). The reports cover the period of July 1-December 31, 1999.

If you have any questions or concerns regarding these reports, please contact Senior Fisheries Biologist Supervisor Neil Manji at (530) 225-2306.

Sincerely,


Donald B. Koch
Regional Manager

Enclosures

cc: Mr. Gene Fleming, Chief
Fisheries Programs Branch
Mr. L.B. Boydston
Intergovernmental Affairs Office
Department of Fish and Game
1416 Ninth Street
Sacramento, California 95814

Messrs. Gary Stacey and Neil Manji
Northern California-North Coast Region
Department of Fish and Game
601 Locust Street
Redding, California 96001

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SEMIANNUAL PERFORMANCE REPORT

STATE: California

AWARD NUMBER: NA76FA0296

PROJECT TYPE: Anadromous Fish ResearchPROJECT TITLE: Salmon and Steelhead Research, Management and Enhancement Project.PERIOD COVERED: July 1-December 31, 1999 Part IStudy 1. Ocean Salmon ProjectJOB 1. Commercial Ocean Salmon Fishery Monitoring and Evaluation

During the July-December 1999 period, an estimated 105,100 chinook salmon (1.4 million pounds) were landed during the period. Most salmon were larger than usual with an average weight of 13.0 pounds; in 1998, the average weight was 8.7 pounds during the same period. The commercial salmon fishery closed statewide on September 30.

On July 1, an experimental commercial fishery was conducted to determine if an inside fishery would have lower impacts on depressed Klamath salmon stocks than those historically observed when the fishery took place primarily outside six miles. The fishery occurred in the area from Point Reyes to Fort Ross (2,500 fish quota) within 6 nautical miles of shore. Fishermen were restricted to a daily landing limit of 30 fish per day (all salmon except coho). The minimum size limit was set at 26-inch total length (TL) to remain consistent with previous test fisheries conducted in 1997 and 1998. In addition, all fish had to be landed daily within the same area in which they were caught to ensure good tissue quality. Project staff sampled commercial landings and collected 481 tissue samples (cheek muscle and caudal fin-clips) for genetic stock identification. On July 12, the fishery closed when the 3,200 quota was met. Genetic stock analysis performed by Dr. Gary Winans of National Marine Fisheries Service, Seattle, found that approximately 3 percent of the fish sampled were of Klamath origin. On July 18, the fishery reopened with no quota and a 27-inch TL minimum size limit.

On September 1, a 7,000 salmon quota fishery opened from House Rock, Oregon to the Humboldt south jetty. There was a possession and daily limit of 30 salmon per day and a 26-inch TL minimum size limit. Approximately 2,500 chinook salmon were landed with an average weight of 10.5 pounds. The Klamath Control Zone (a 12-mile square area around the mouth of the Klamath River) remained closed.

On September 1, Horse Mountain to Point Arena opened. The minimum size limit was 26-inch TL. In the Fort Bragg area approximately 2,300 salmon (26,250 pounds) were landed during the 30-day opener.

On July 1, the fishery opened from Point Reyes to Point San Pedro. In addition, the minimum commercial size limit increased from 26-inch TL to 27-inch TL for all fishing south of Point Arena (excluding the test fishery). On July 17, the commercial fishery opened from Point Arena to Point Reyes. Approximately 89,900 (1.2 million pounds) chinook salmon were landed in the San Francisco area. On August 21, the fishery closed from Point San Pedro to the US-Mexican border and reopened September 1. In the Monterey major port area, 10,400 (134,160 pounds) salmon were landed with an average weight of 12.9 pounds during the July-September period.

Estimated Commercial Landings April - June 1999

Major Port Area	Number of salmon landed	Pounds of dressed salmon landed	Average weight
Humboldt S. Jetty-House Rock (OR) (Crescent City-Eureka)	2,500	26,250	10.5 lbs
Horse Mtn.-Point Arena (Shelter Cove-Fort Bragg)	2,300	28,060	12.2 lbs
San Francisco (Bodega Bay-Princeton)	89,900	1,168,700	13.0 lbs
Monterey (Santa Cruz-Mexican Border)	10,400	134,160	12.9 lbs

JOB 2. Recreational Ocean Salmon Fishery Evaluation

During the July-November period, approximately 34,250 chinook were landed in California by an estimated 51,210 sport anglers (CPUE: 0.7 salmon/angler). Single-point, single-shank barbless hooks had to be used north of Point Conception and anglers were limited to one rod. In addition, any anglers fishing with bait and angling by any other means than trolling were required to use barbless circle hooks. The minimum size limit was 24-inch TL from Horse Mountain to the US-Mexican border.

On July 4, the fishery closed north of Horse Mountain in the Klamath Management Zone (Eureka and Crescent City port areas) and reopened from July 29 to September 14. The Klamath Control Zone was closed in August. Anglers were allowed one salmon per day (any species except coho) and no more than 4 fish in 7 consecutive days. The minimum size limit was 20-inch TL. An estimated 3,100 chinook were landed by 11,700 anglers fishing in private skiffs (CPUE: 0.3 salmon/angler). Approximately 100 salmon were landed by 300 anglers (CPUE: 0.3 salmon/angler) fishing from commercial passenger fishing vessels (CPFVs). Most fish weighed 9-15 pounds. Anglers reported catching and releasing many coho salmon in the area.

On July 4, the recreational fishery closed in the Fort Bragg port area between Horse Mountain and Point Arena and reopened from July 25 to November 14. Just over 4,000 salmon were landed by 6,300 anglers fishing from private skiffs (CPUE: 0.6 salmon/angler). An estimated 720 salmon were landed by 1,730 anglers (CPUE: 0.4 salmon/angler) fishing from commercial passenger fishing vessels (CPFVs). Salmon brought into Fort Bragg and Shelter Cove averaged 15 pounds. From August 1 through September 6, a "first two fish" fishery was in effect from Point Arena to the US-Mexican border. This fishery operated with no minimum size and banned "catch and release" of any salmon except coho. Approximately 2,700 chinook salmon were landed during this time.

On September 6, the fishery closed south of Pigeon Point. Approximately 1,010 chinook were landed by 2,760 anglers fishing on CPFVs (CPUE: 0.4 salmon/angler) in the Monterey port area (Santa Cruz, Moss Landing, Monterey, Morro Bay and Avila). During the July-September period an estimated 2,200 chinook were landed by 5,710 anglers fishing in private skiffs (CPUE: 0.4 salmon/angler). Most fishing activity (primarily trolling) occurred inside the bay and salmon averaged 12 pounds.

On October 31, the recreational fishery closed between Point Arena and Pigeon Point. During the July-October period an estimated 24,200 chinook were landed by 27,460 anglers fishing in private skiffs (CPUE:0.9 salmon/angler) in the San Francisco port area (Bodega Bay, Sausalito, Berkeley/Emeryville, San Francisco and Princeton). An additional 26,030 chinook were landed by 36,240 anglers fishing on CPFVs (CPUE: 0.7 salmon/angler). Activity was spread out from Point Reyes to Deep Reef. Most salmon weighed 8-25 pounds.

Recreational Landings July - November 1999

Major Port Area	Private Skiffs		CPFVs		Total Sea Lion Take	Total Period Catch
	#salmon	#anglers	#salmon	#anglers		
Crescent City	880	4,300	0	0	3	880
Eureka	2,920	7,440	100	300	0	3,020
Fort Bragg	4,040	6,300	710	1,730	40	4,840
San Francisco	24,200	27,460	26,030	36,240	350	50,230
Monterey	2,200	5,710	1,010	2,760	140	3,220
Total	34,240	51,210	27,850	41,030	533	62,190

Estimated funds expended during the semiannual period:

	<u>Personnel Services</u>	<u>Operating Expenses</u>	<u>Total</u>
State	35,921	9,866	45,787
Federal	<u>35,922</u>	<u>9,866</u>	<u>45,788</u>
	71,843	19,732	91,575

Prepared by: _____

Date: _____

Melodie Palmer-Zwahlen
Associate Marine Biologist
Ocean Salmon Project

cc: Mr. Allen Grover, MR-Healdsburg
Mr. Eric Larson, MR-Menlo Park
Ms. Patty Wolf, MR-Long Beach

SEMI-ANNUAL PERFORMANCE REPORT

STATE: California

AWARD NUMBER: NA76FAO296

PROJECT TYPE: Anadromous Fish ResearchPROJECT TITLE: Salmon and Steelhead Research, Management and Enhancement ProjectPERIOD COVERED: July 1-December 31, 1999Study 2. Klamath River ProjectJOB 1. Klamath River Salmon and Steelhead Study

The creel census of the lower Klamath River chinook salmon sport fishery (mouth to falls at Coon Creek, River Mile [RM] 34) which began August 6, 1999, continued through October and into November 1999. Preliminary estimates of fishing effort and catch for the season are provided in Table 1.

For the 1999 season, the in-river sport harvesting quota was set at 2,900 adult chinook salmon; approximately 61 percent more than the previous year's quota of 1,800. In the regulations, chinook were considered adult if their total length (TL) exceeded 56 cm. This year's quota of adult chinook was split 50 percent (1,450), 17 percent (493) and 33 percent (957) between anglers below RM 34 (falls at Coon Creek), anglers in the main stem Klamath River above RM 34 and anglers in the Trinity River, respectively. This year, regulations restricted fishing within 200 yards of the mouth of the river and the bag limit was reduced to one salmon or one hatchery trout/steelhead per day. Also under this year's regulations, anglers were required to cease fishing for the day when they retained one fish.

Due in part to the new regulations and in part, to the timing of adult returns to the river, the sport angler quota was not reached until September 27, 1999. The lower river, including the mouth, did reopen to the take of adult chinook salmon on October 15, however, only 19 grilse and 44 adult chinook were landed after this date.

In addition to the grilse and adult chinook salmon harvested, we estimate that another 1,165 adult chinook were caught and released during this reporting period. Estimated angler effort (angler hours) and the number of grilse chinook harvested this season in the lower Klamath (below RM 34) is about 81 percent and 167 percent of the 1998 estimate, respectively. Based on coded-wire-tag (CWT) recoveries from this fishery as well as the Indian net fishery, all chinook salmon entering the Klamath River in August were fall-run chinook. No spring-run chinook salmon CWTs were seen this season.

To accommodate this year's harvesting regulations, Project personnel spent considerable time processing creel data and developing harvesting summaries on a daily basis. We also developed projected harvesting estimates for 24, 48 and 72-hour periods beyond that for which we had collected data. This was done to provide the lead time necessary to implement sport angler regulation changes.

New regulations in effect this year changed the main stem Klamath River between Coon Creek Falls to Iron Gate Hatchery (IGH) from a time managed area (28-day season) to a quota managed area. Seventeen percent of the inriver sport quota, or 493 adult chinook salmon, were allocated to this section of river. A creel census was performed throughout this 150-river mile (RM) long section of river to monitor angler effort and catch. Preliminary results are provided in Table 1.

Anglers met the quota in this upriver area on October 15, 1999. However, regulations in effect allowed for resumption of adult chinook harvesting in the main stem Klamath upstream of Interstate-5 (I-5) once IGH achieved a minimum 8,000 adult fish escapement. This I-5 section did reopen during the third week in October to additional adult harvest. This year, estimates of the additional harvest (211 adults) were developed through the creel census and are included in Table 1.

A one year funding augmentation was received from the Trinity Restoration Program to help pay for this year's comprehensive creel census of the main stem Klamath River.

A weir on the Shasta River, a major upper Klamath River spawning tributary, was installed and operated between September 17 and November 4, 1999. This year, the entire fall chinook salmon run was video taped using time-lapse video recording techniques. Spawning ground surveys of all accessible areas occurred twice weekly to collect scale samples, lengths, sex ratio and other needed data. A review of the captured video is under way.

The Bogus Creek facility was installed September 24 and was operated until November 11, 1999. Funding for work on Bogus Creek this year was obtained through a grant from the Klamath Restoration Program (Klamath Basin Fisheries Task Force). Results are mentioned here for completeness sake. In 1999, the Bogus Creek facility was operated as a fish marking station instead of a counting station to keep costs to a bare minimum. It was operated for 8 hours/day, 7 days/week to sample and mark fish. For the remainder of the time, the trap was left open to allow fish to pass unobstructed. An estimate of chinook escapement will be based on the recovery of marked fish observed during spawning ground surveys and the Peterson estimator.

Salmon spawning ground surveys of other selected Klamath River tributaries upstream of the mouth of the Trinity River began in mid-October and were completed in

mid-December. Mark and recapture techniques will be used to estimate escapement in the Scott and Salmon rivers while expanded redd counts will be used in the smaller tributaries.

Again this year, these surveys were performed in cooperation with the US Forest Service (Klamath and Six Rivers National Forests), Shasta Valley and Scott River Coordinated Resource Management Planning groups, the Salmon River Restoration Council, AmeriCorps, local high school student volunteers and the Yurok Tribal Fisheries Department.

Project personnel again spent considerable time and effort this year securing permission from private property owners along the Scott and Shasta rivers prior to performing spawning ground surveys. This annual effort is required by the provisions of California SB 779. We attempted to contact approximately 120 landowners along the Scott River and approximately 30 property owners along the Shasta River. Approximately 78 percent of those contacted granted access this year.

JOB 2. IGH Juvenile Salmon Tagging

No work was performed on this job during this reporting period.

JOB 3. Recovery of Coded-wire-Tags from Salmon Returning to IGH

Totals of 3,439 grilse and 10,681 adult chinook salmon were handled at IGH during the 1999 season. A total of 169 coho salmon (18 grilse and 151 adults) was also handled at IGH during this reporting period. Thus far, Project personnel have recovered 829 snouts for later CWT extraction and decoding from Ad fin-clipped salmon observed.

The project is on schedule and there have been no deviations from the work planned.

Estimated funds expended July 1-December 31, 1999:

Federal	\$140,000
State	<u>\$140,000</u>
TOTAL	\$280,000

Prepared by: _____
Mark S. Pisano

Date: January 11, 2000

Table 1. Main stem Klamath River (mouth to Iron Gate Hatchery) Angler Harvesting Summary, 1999 Season. Preliminary Data.

Mode/location	Angler		Steelhead		Chinook Salmon	
	Trips	Hours	<42 cm	>41 cm	<59 cm	>58cm
Area 1 -Mouth to Highway 101 Bridge						
Shore	171	406	0	0	0	0
Boats	3,083	8,342	2	0	25	114
Totals	3,254	8,748	2	0	25	114
Area 2 - Highway 101 to Coon Creek Falls (RM 34)						
Shore	1,100	2,702	5	8	56	43
Boats	6,234	30,986	2	30	813	1,069
Totals	7,334	33,688	7	38	869	1,112
Sub totals	10,588	42,436	9	38	894	1,226
98 season comparables	17,606	52,145	92	33	534	2,878
Area 3 -Coon Creek Falls to Iron Gate Hatchery						
All sites	N/A ^{1/}	N/A	32	2	124	617
99 season totals			41	40	1,018	1,843

^{1/} N/A = Not available at this time.