## FEDERAL AID IN SPORT FISH RESTORATION

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Homer Area Sport Fisheries Enhancement

by Nick Dudiak and Larry Boyle F-27-R

Alaska Department of Fish and Game Division of Fisheries Rehabilitation, Enhancement and Development

> Don W. Collinsworth Commissioner

Brian J. Allee, Ph.D. Director

P. O. Box 3-2000 Juneau, Alaska 99802-2000

October 1988

Volume 3, Number 6

#### RESEARCH PROJECT SEGMENT

State:	Alaska	Name:	Southcentral Sport Fisheries Enhancement
Project:	F-27-R	Study Title:	Homer Area Sport Fisheries Enhancement
Cooperat	cors: N.	Dudiak, L. Boyle,	M. Dickson, W. Bechtol
Period C	Covered:	1 July 1987 to 30	June 1988

#### ABSTRACT

Increasing numbers of anglers that utilize lower Kenai Peninsula salmon fisheries have created the need for additional salmon returns. Supplemental production of chinook salmon, Oncorhynchus tshawytscha, coho salmon, O. kisutch, sockeye salmon, O. nerka, and pink salmon, O. gorbuscha, by the Alaska Department of Fish and Game (ADF&G), Fisheries Rehabilitation, Enhancement and Development (FRED) Division in the Homer area is being undertaken to provide additional angling opportunities. Salmon smolts, fingerlings, and fry are released in areas that have limited or no natural salmon runs. Returns from these releases provide additional opportunities to satisfy the increased fishing effort. The angling effort on these enhanced salmon returns also displaces pressure on the natural salmon returns to area rivers which have become restrictively managed to ensure adequate spawner escapement. The Homer Area Sport Fisheries Enhancement Project currently provides over 90% of the salmon sport-fish harvest in the Kachemak Bay area. During 1988 approximately 425,000 chinook salmon smolts, 62,000 coho salmon smolts, 230,000 coho salmon fingerlings, 10,000 steelhead trout smolts, 2 million sockeye salmon fry, and 24 million pink salmon fry were released to enhance local fisheries. Over 21,000 adult salmon, including chinook, coho, sockeye, and pink salmon, were harvested by anglers in 1988.

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chinook salmon in the Kachemak Bay area. While the number of fish caught is small, it is interesting that the majority of the fish were released from areas far from Cook Inlet. Of 39 tags reported from "feeder" chinook salmon since 1977, 12 were from Oregon hatcheries, 3 from Washington hatcheries, 20 from British Columbia hatcheries, and 4 from southeastern Alaska hatcheries (Table 9).

### SUMMARY

All the projects that make up the sport fisheries enhancement program in the Homer area have greatly increased the sportfishing opportunities and have satisfied an increased angling demand. The objectives of the program have successfully provided supplemental salmon production and increased the sport-fishing opportunities in the Kachemak Bay area. A total of nearly 23,000 more salmon was harvested in 1988 (Table 10) and juvenile salmon released in 1988 should guarantee the continued success of the sport-fishery enhancement program (Table 11).

Within this enhancement program and by taking advantage of salmon imprinting abilities, anglers now have a greater variety of locations, species, and time to fish in the Homer area. Boat and shore anglers now have a longer open season and more locations to fish for chinook salmon than is available on the rivers of the lower Kenai Peninsula, and the program has displaced fishing pressure from the natural returns that occur in those rivers. This can be especially important during years when natural returns are low because of conditions such as stream flooding, as was the case for local natural pink salmon stocks in 1988. Overall, this enhancement program is estimated to contribute at least 90% of the sport-caught salmon in Kachemak Bay area waters. Because of these efforts and through public information and education, new anglers have also been drawn to the sport, and

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