

Information Report

Evaluation of Releases of 1964-Brood Coho Salmon Fry in  
South Coastal Streams

1955  
K. J. Jensen  
Very Good.  
JK

INTRODUCTION

In the fall of 1964, returns of adult coho salmon to coastal hatcheries operated by the Fish Commission were in excess of hatchery needs. A program was initiated to transport the surplus adults and fry to streams which had barren areas or were underutilized by natural populations of coho. Only a limited number of adults was released in south coastal streams due to the distances involved in transporting the fish from the hatcheries. The effectiveness of the adult releases was questionable since the fish were generally in poor condition, over-ripe, and were planted just prior to the December 1964 flood. Most south coastal streams planted with adults were subsequently stocked with surplus fry during February and March of 1965.

In some streams adults returning from the fry plants will not be able to reach areas where they were stocked due to obstructions. However, the returning fish will contribute to the offshore commercial and sport fisheries in addition to the river sport fishery. Surviving adults may also provide additional spawning potential below the obstructions.

METHODS

Fry Stocking Procedure

Surplus coho fry for the south coastal streams were transported in trucks from the Alsea River Hatchery. The number of fry stocked in a selected stream was generally determined by the estimated minimum flow and amount of available rearing area. In some instances, additional fry were released in small tributaries to stock the main stream where no other access was available. An effort was made to scatter plant the fish as widely as possible.

### Juvenile Evaluation Procedure

Each stream receiving surplus coho fry was visited in August 1965 to evaluate the success of the plants. This was accomplished by making seine hauls or observations at various points along the stream. In addition, stream temperatures and flows were taken. The success of establishing coho populations in each stream was rated as poor, good, or excellent depending upon the comparative abundance of coho observed in the surveys. Streams rated as poor contained very few or no coho juveniles. Those rated as good contained fair numbers of fish but appeared to be less numerous than those rated as excellent. Streams rated as excellent contained schools of coho in nearly every pool examined and appeared to be at a maximum carrying capacity.

On some streams, an effort was made to determine the extent of migration from the planting sites.

### RESULTS

During February and March of 1965, nearly 3.4 million coho fry were distributed in tributaries of the Umpqua, Millicoma, Coos, and Coquille rivers, and in Floras and Brush creeks (Table 1). An additional 264,000 fry were released in 5 Siuslaw River tributaries above Triangle Lake under the direction of Bill Saltzman, Oregon Game Commission biologist, as part of a research project.

A total of 25 different areas was planted with fry. Evaluation of the juvenile populations in August showed that 6 were rated poor, 4 good, 12 excellent, and 2 ranged from poor to excellent (Table 1). Middle Creek, tributary of the North Fork of the Coquille River was not evaluated.

The smaller tributary streams generally had much higher populations of coho than the larger streams. Most of the coho in the larger streams were concentrated in the upper portions of the drainage. In some of the larger streams concentrations of coho were occasionally noted near the mouths of cool tributaries.

Table 1. Summary of Planting and Evaluation Data of 1964-Brood Coho Planted in South Coastal Streams

River System	Planting Data			Evaluation Data					
	Tributary	Stream Miles	Number Planted	Date (1965)	Flow (cfs)	Temp. (°F)	Evaluation of Plant		
							Poor	Good	Excellent
Umpqua	Lake (upper)	15	131,096	8/9	2	74	X		
	" (lower)	6	237,500	8/12	4	72	X		
	Tom Fool	0.3	50,002		<1	62		X	
	Soup	3	75,000		1	60			X
	Bear Camp	1	65,548	8/9	2	65			X
	Pheasant	3	98,317	8/9	<1	78	X		
Millicoma	East Fork (above 40' falls)	3	180,257	8/9	3	67	X		
	(below 40' falls)	2		8/9	3	64		X	
	Matson	8	273,555	8/9	3	73			X
Coos	South Fork Fall	5	103,572	8/17	2	62		X	
	Tioga	4	155,358	8/17	3	68			X
Coquille	North Fork								
	Middle Park	7	184,807		Not evaluated				
	East Fork	0.5	72,603	8/17	2	71			X
	Middle Fork	7	466,074	8/11	4	61	X		
	Holmes	7	245,805	8/10	3	68	X	to	X
	Reed	2	49,169	8/10	1	65			X
	Wildcat	1.2	16,382	8/10	None	-	X		
	Lang	1.5	32,774	8/10	<1	63			X
	Cole	0.2	65,548	8/10	<1	63			X
	South Fork	0.5	65,548	8/10	<1	62			X
	Wooden Rock	12	117,032	8/13	5	67	X	to	X
	Foggy	3	87,774	8/13	3	66		X	
Floras	Floras	2	97,774	8/13	2	58			X
	Floras	6.5	264,010	8/17	5	-	X		
	North Fork	4	130,481	8/17	2	-			X
Brush	Brush	3	132,005	8/9	12	67			X
Totals		107.7	3,397,991						

Coho were observed above the uppermost planting sites in most of the streams checked with the extent of dispersion limited by small log jams or falls. Downstream dispersal was excellent in most streams checked with the exception of the South and Middle Forks of the Coquille River. The fish in the South Fork were

all released at the upper end of the drainage due to lack of access in the lower portion. Probably insufficient numbers were released to adequately stock the downstream area. The absence of many coho in the lower end of the Middle Fork may be associated with poor water quality. The Middle Fork is sluggish and subject to high temperatures in Lower Camas Valley where streamside cover is sparse.

#### RECOMMENDATIONS

We recommend that no further plants of coho be made in streams listed as poor in Table 1 with the exception of the East Fork - Coquille River and Floras Creek. There were no obvious reasons for the small numbers of coho found in either stream, although excessive siltation due to log jam removal projects in the East Fork may have been a contributing factor in this stream. Stocking of coho in Brush Creek should also be discontinued since the stream has received three successive annual plants in an attempt to establish a natural population. Further study on Brush Creek will be confined to evaluating the number of returning adults and their success in reproduction.

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