



STATE OF CALIFORNIA

Department of Fish and Game

Summary of Fish Stocking and Fishway Counts,
South Fork of Bel River System, California

Year	Steelhead		Silver Salmon		King Salmon		Rainbow Trout
	Plant	Count	Plant	Count	Plant	Count	Plant
1938	85,000	12,995	-----	7,370	-----	6,051	-----
1939	90,000	14,476	-----	8,629	60,341	3,421	-----
1940	90,040	18,308	-----	11,073	-----	14,691	-----
1941	70,080	17,356	-----	13,694	-----	21,011	-----
1942	75,000	25,032	-----	15,037	-----	10,612	-----
1943	-----	23,445	-----	13,030	-----	7,264	-----
1944	-----	20,172	-----	18,309	-----	13,966	-----
1945	-----	13,626	-----	16,731	-----	12,488	-----
1946	-----	19,005	-----	14,109	-----	16,024	-----
1947	-----	18,225	-----	25,289	-----	13,160	-----
1948	-----	13,963	-----	12,872	-----	16,312	-----
1949	-----	13,715	-----	7,495	-----	3,803	-----
1950	-----	15,138	-----	12,050	-----	14,357	-----
1951	-----	13,774	-----	11,441	-----	12,476	-----

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DEPARTMENT OF FISH AND GAME

BENBOW DAM FISH COUNTS

Each year the Bureau of Fish Conservation of the Department of Fish and Game counts the salmon and steelhead which ascend the fishway at Benbow Dam, on the South Fork of Eel River near Garberville. These counts have been made each year since the season of 1938-39. The purpose of this bulletin is to inform anglers and other interested persons of the objectives and results of this work.

Objectives

We count fish at Benbow Dam for the same reason that a population census is made or an inventory is taken by a storekeeper. Counts are the most effective way to determine fluctuations in the stocks of the steelhead and the two kinds of salmon in the Eel River. Such knowledge provides the basis for evaluating the results of regulation and management practices.

There is another reason for making the counts. Large dams have been proposed for construction within the Eel River system. Whether or not such dams are built will be determined in large part by their estimated effects on the salmon and steelhead runs and the monetary value of these runs. The monetary value can be determined only if we know the size of the runs. The size of the runs can best be obtained by counts such as those at Benbow Dam.

Results

Fluctuations in the size of the runs are to be expected and are normal. They are generally of two types: short term fluctuations from year to year and long term cyclical fluctuations extending over a period of years. Fluctuations depend upon such things as: food, temperature, stream flows, and other environmental conditions in fresh and salt water, intensity of angling, and intensity of commercial fishing (salmon). We can control some of these factors, but as yet have no control over others, such as the survival of young in the ocean. Survival in the ocean is undoubtedly a factor of considerable importance. Small runs in 1938-40 and 1949-50 may not have much significance in the long run.

When sufficient data have been obtained so that we can state why the numbers of salmon and steelhead fluctuate so widely we may be in a position to increase the runs. Until such time as the facts are available we must avoid actions based on guesswork that may do more harm than good.

<u>Season</u>	<u>King Salmon</u>	<u>Silver Salmon</u>	<u>Steelhead</u>	<u>Total</u>
1938-39	6,051	7,370	12,995	26,416
1939-40	3,424	8,629	14,476	26,529
1940-41	14,691	11,073	18,308	44,072
1941-42	21,011	13,694	17,356	52,061
1942-43	10,612	15,037	25,032	50,681
1943-44	7,264	13,030	23,445	43,739
1944-45	13,966	18,309	20,172	52,447
1945-46	12,488	16,731	13,626	42,845
1946-47	15,024	14,109	19,005	48,138
1947-48	13,160	25,289	18,225	56,674
1948-49	16,312	12,872	13,963	43,147
1949-50	3,803	7,495	13,715	25,013
1950-51	14,357	12,050	15,138	41,545
1951-52	12,476	11,441	13,774	37,691
Total	165,639	187,129	239,230	591,998
Average	11,831	13,366	17,088	42,286

Please cooperate in making the counts a complete success. If you have any questions, consult the local representative of the Department of Fish and Game or write to the California Department of Fish and Game, Ferry Building, San Francisco.
6/25/52 - L.S. & G.I.M. - 100