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1955 KING SALMON COUNT
SHASTA RIVER, SISKIYOU COUNTY
AND SOME NOTES ON THE 1956 RUN/1

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INTRODUCTION

The Shasta River fish counting racks were installed on August 24 by Yreka Screen Shop personnel. Fish were counted upstream and the counting racks were maintained until November 8, when the station was closed for the season.

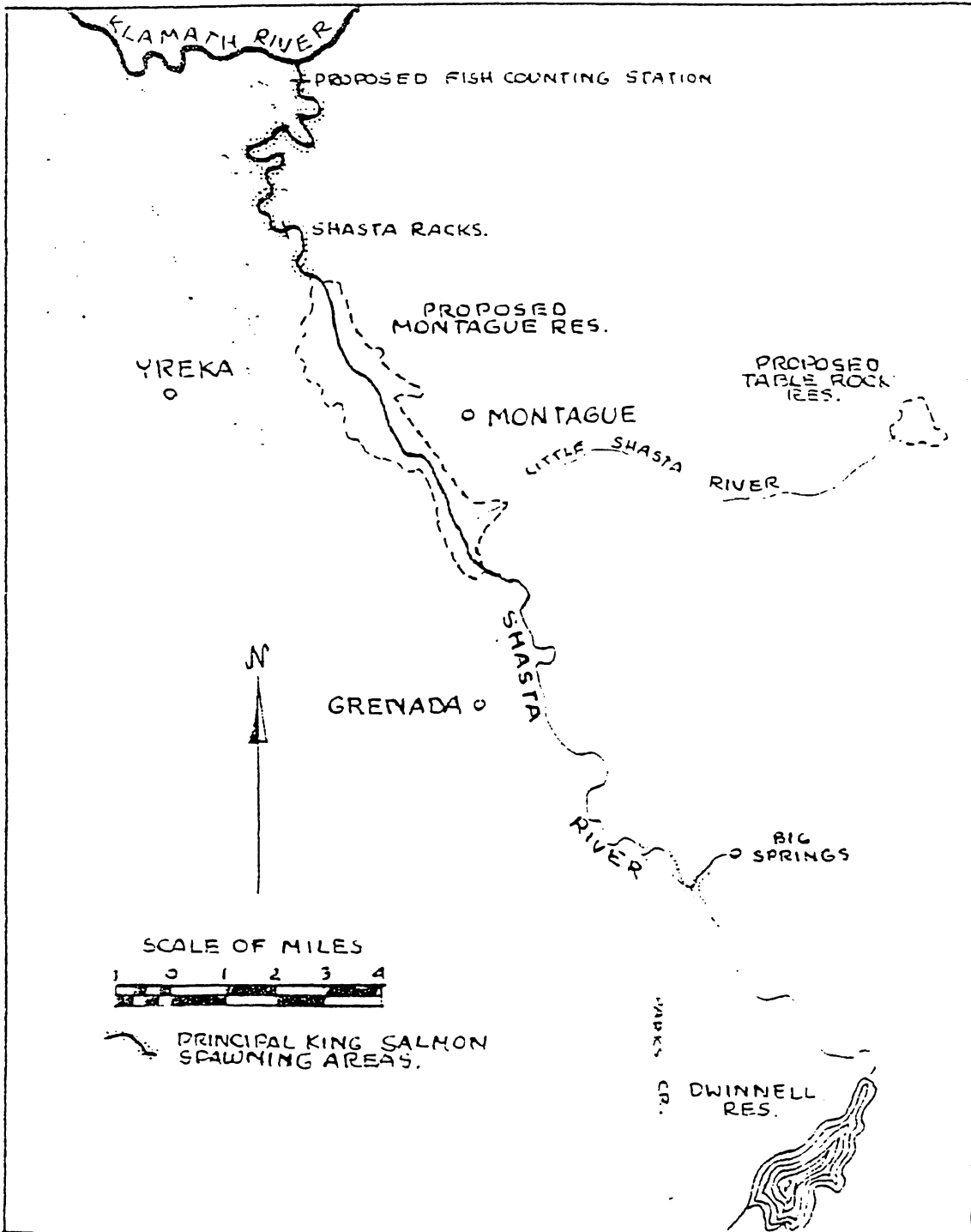
THE COUNT

King salmon were observed entering the Shasta River from the Klamath River on September 1. The mean daily flow on this date was 7.7 cubic feet per second and the water temperature at 4:30 p.m. was 79 degrees Fahrenheit. Two weeks later, September 15, salmon were noted just below the counting station, which is located about six and one-half miles upstream from the mouth.

The total count between September 16 and November 5 was 1,517 king salmon, composed of 197 grilse, 724 males, and 316 females. The largest count for the day was on October 3, when 276 salmon were counted upstream. 77 adult steelhead were also enumerated during this period. No adult silver salmon were noted during the operation of the fish counting station.

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FIGURE 1



DISCUSSION

During the fall of 1955 an extensive king salmon carcass survey was made on the Shasta River. The purpose of this survey was to determine if any marked hatchery fish, which were stocked as fingerlings in the Klamath River in 1952, had entered the Shasta River. This work was done by Marine Fisheries Branch personnel under the supervision of Mr. George Weber with assistance from Inland Fisheries Branch personnel. The Shasta River was patrolled extensively and dead fish drifting down on the Shasta Racks were examined. 3,426 carcasses were checked and one marked hatchery fish returning as a four-year-old was recovered.

This survey also provided information in regards to the sections of the river utilized by spawning salmon. The majority of the fish spawned in the six and one-half miles of stream below the Shasta Racks. Most of the fish that were counted upstream appeared to have spawned in the two miles of stream just above the racks. Except in the river from the confluence of Big Springs downstream for about two miles very little spawning activity was noted in Shasta Valley proper.

Spawning success appeared to have been highly successful. Out of 3,307 identifiable carcasses only 37 or slightly over one percent were ripe. Some of the latter fish bore such injuries as would result from illegal snagging or spearing. Irrigation diversion dams, which have hampered upstream migration through the Shasta Valley in the past, were all negotiated with little difficulty by salmon in 1955.

THE 1956 SHASTA RIVER KING SALMON RUN.

The Shasta Racks were severely damaged during the floods of December, 1955 and the 1956 king salmon run was not counted. Based on

FIGURE 2.

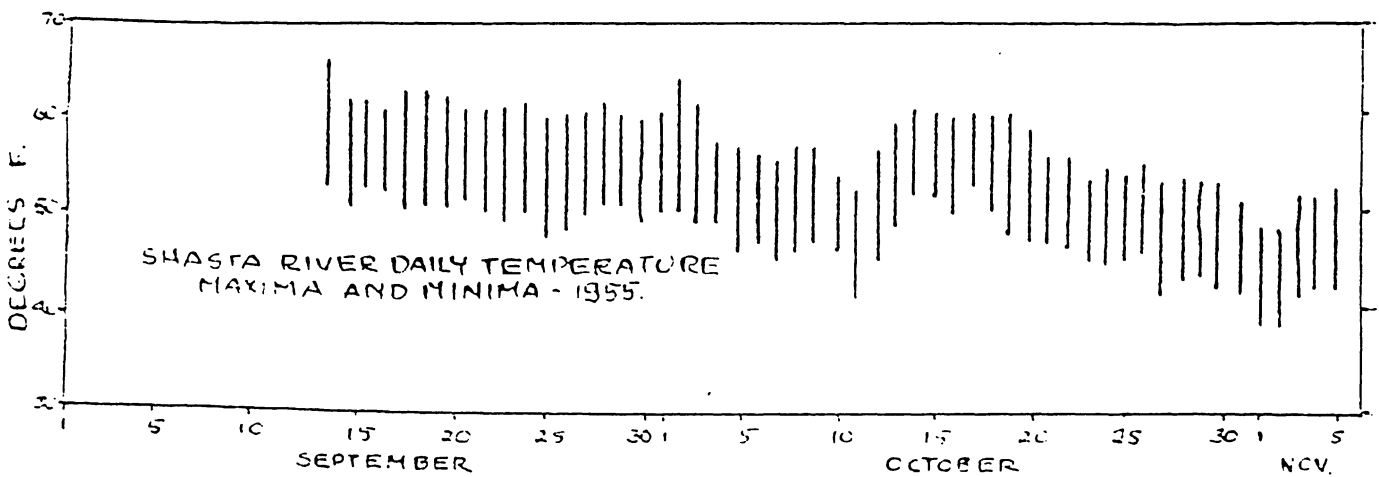
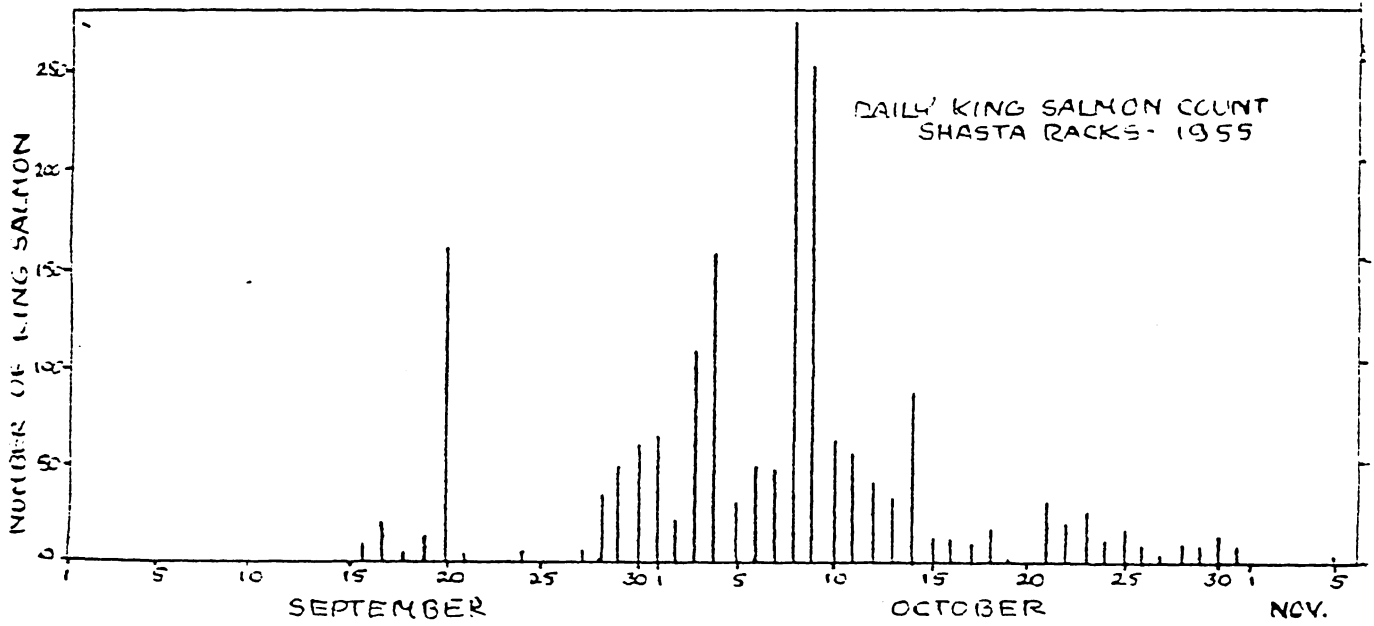
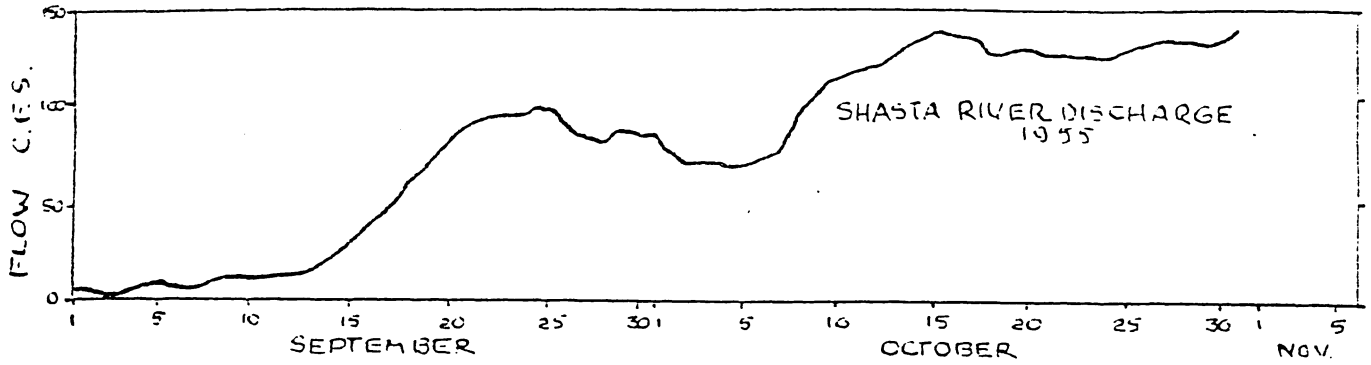


TABLE 1.

SHASTA RIVER KING SALMON COUNTS

Year	Number of Fish	Year	Number of Fish
1930	19,338	1943	10,022
1931	81,844	1944	11,498
1932	34,689	1945	18,191
1933	11,570	1946	7,590
1934	44,668	1947	341
1935	74,537	1948	37
1936	46,115	1949	193
1937	33,255	1950	248/2
1938	9,090/1	1951	2,024
1939	28,269	1952	1,666
1940	55,155	1953	1,605
1941	13,252	1954	2,625
1942	11,425	1955	1,817
		1956	No Count.
		1957	2,134

/1 Prior to this year the counts were made near the mouth of the river. Subsequent counts were made six and one-half miles upstream from the mouth.

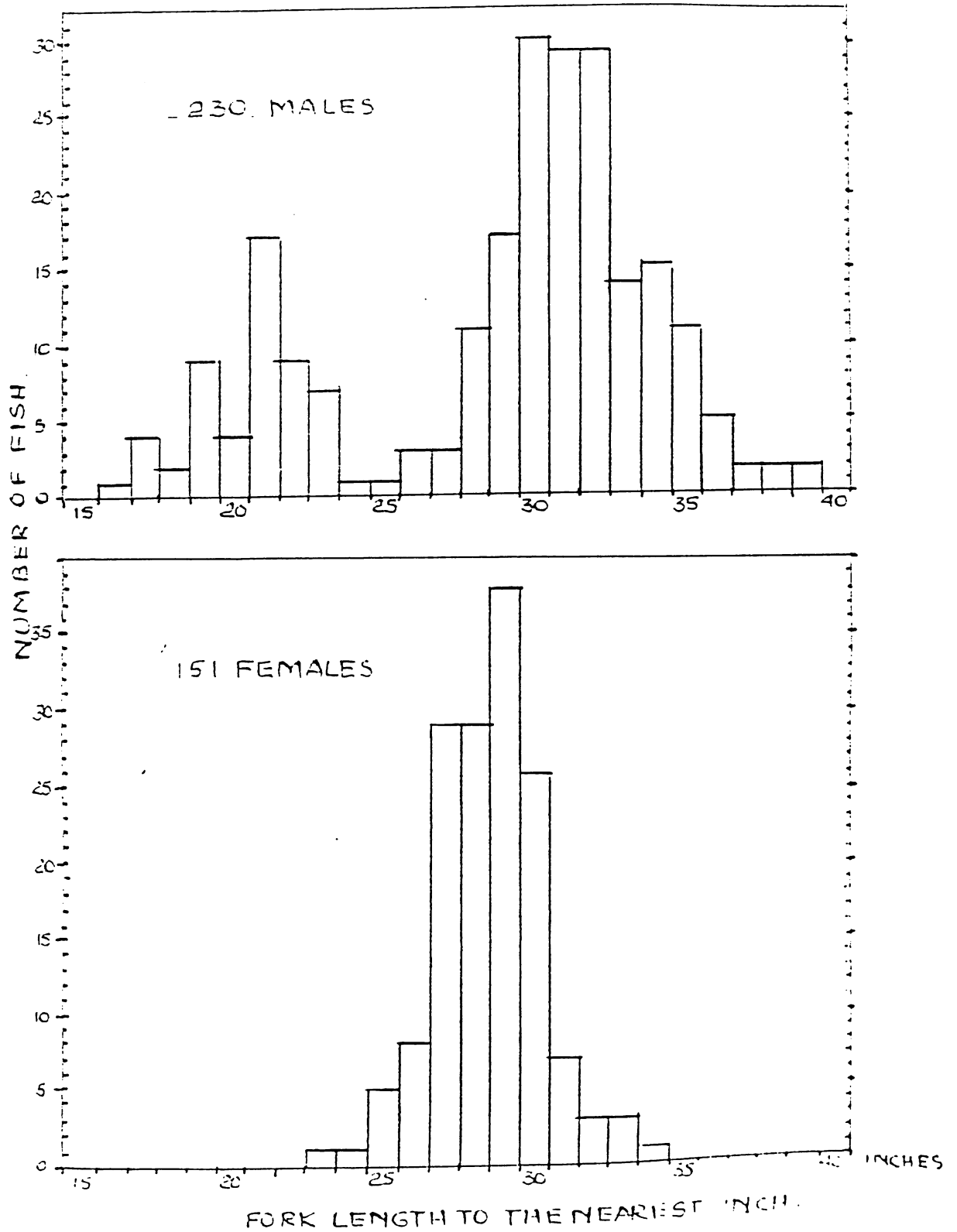
/2 Not an accurate count. Hole discovered in racks.

stream surveys the spawning escapement into the Shasta River appeared to be about 50 percent of the 1955 king salmon run. The flow discharge during the fall of 1956 was considerably greater than in 1955, presumably due to an above normal year of precipitation. Likewise, the king salmon count at the Klamath fish counting station on the Klamath River was well below average.

The aftermath of the serious fires that raged over 300,000 acres of Klamath River watershed during September, 1955 might have contributed to the low king salmon runs in the upper Klamath drainage in 1956. During the summer and fall of 1956 a series of heavy thundershowers occurred in this denuded area. Considerable amounts of mud, sand, and debris were washed into the Klamath River. The river was generally very turbid and silty during this period. Reliable reports indicated that many dead sal-

FIGURE 3.

KING SALMON CARCASS LENGTHS. SHASTA RIVER.
1955.



mon were noted along the river in the vicinity of the confluence of the Salmon and Klamath Rivers, particularly during August and September. One dead adult salmon was observed near Happy Camp on August 9. This fish had been dead approximately 24 hours prior to recovery. Its gills appeared to be clogged with silt which was likely the cause of its demise.

SUMMARY

1,817 adult king salmon, 197 grilse, 734 males, and 886 females, were counted at the Shasta Racks in 1955. No salmon were counted in 1956 and the run for that year appeared to be about one-half the magnitude of the 1955 spawning run.

REFERENCE

Weber, George

1956. North Coast Salmon Data. 1955. Calif. Dept. Fish and Game, Marine Fisheries Branch. 59 p.