

STATE OF CALIFORNIA  
DEPARTMENT OF FISH AND GAME  
INTRAOFFICE CORRESPONDENCE

DATE June 3, 1955

To: Willis A. Evans, Fisheries Management Supervisor, Region III

From: Herbert E. Pintler, Asst. Fisheries Biologist, Region III

SUBJECT: Creel Censuses on Opening Day of Trout Season, April 30, 1955  
for Four Streams in Sonoma County,

The writer undertook creel censuses on as parts of Dry, Warm Springs, Big Sulphur and Maacama Creeks. All tributaries to the Russian River in Sonoma County, on Saturday, April 30, the opening day of the 1955 trout season in this area. The primary purpose of the censuses was to learn the level of fishing success on these streams and to compare results with previous years' censuses in order to help evaluate the results of the Russian River rough fish control project.

Fishing conditions were rather poor at the opening of the 1955 trout season. The weather was cloudy and there were brief, intermittent showers. Recent rains had raised Dry Creek at the mouth of Warm Springs Creek was high enough to cause the trout to feed actively.

The results of the 1955 creel censuses for these areas are listed under the appropriate headings below. More detailed material is included in field notes in the lake and stream survey files for the region.

DRY CREEK

No. of cars counted	12
No. of anglers checked	15
Total no. of hours fished	61
Total no. of rainbow trout-steelhead caught	15
Approximate size range of RT-SH caught	5" - 9" F. L.
No. of RT-SH per angler	1.00
No. of RT-SH per angler hour	0.25
No. of rough fish caught, seen or reported	0
No. of limits taken	0
No. of zero catches	11

The above figures represent a combined total of figures for three stations checked on the creek.

WARM SPRINGS CREEK

No. of cars counted	73
No. of anglers checked	45
Total no. of hours fished	173
Total no. of rainbow trout-steelhead caught	245
Approximate size range of RT-SH caught	4" - 16" F. L.
No. of RT-SH per angler	5.44
No. of RT-SH per angler hour	1.42

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WARM SPRINGS CREEK - continued

No. of rough fish caught, seen or reported	3 Sacramento Squawfish 1 Sucker 14"
No. of limits taken	7
No. of zero catches	9

In addition to the above recorded fish, 5 adult steelhead were reported hooked and lost.

BIG SULPHUR CREEK

No. of cars counted	46
No. of anglers checked	23
Total no. of hours fished	134
Total no. of rainbow trout-steelhead caught	158
Approximate size range of RT-SH caught	5" - 8" F. L.
No. of RT-SH per angler	4.8?
No. of RT-SH per angler hour	1.18
No. of rough fish caught, seen or reported	1 Sucker
No. of limits taken	5
No. of zero catches	3

*The above figures* represent a combined total of figures for two stations covering the parts of the creek open to public fishing. Several adult steelhead were reported here and lost.

MAACAMA CREEK

No. of cars counted	28
No. of anglers checked	22
Total no. of hours fished	9?
Total no. of rainbow trout-steelhead caught	82
Approximate size range of RT-SH caught	5"/est.
No. of RT-SH per angler	3.73
No. of RT-SH per angler hour	0.83
No. of rough fish caught, seen or reported	0
No. of limits taken	0
No. of zero catches	7

Comparisons with Previous Years As noted above, weather conditions exerted considerable upon the streams on the opening day of the 1955 trout season in this area and the catch per unit of effort may, therefore, be lower than had the stream been normal. The comparisons mentioned below and in the table, although incomplete and in some cases drawn only from oral reports by the wardens, do provide some indication of changing conditions.

Dry Creek, partially treated in the fall of 1952 and fully treated in the fall of 1953, was not checked sufficiently for fishing success in 1953 and 1954 to provide much in the way of comparison. The small sample of fishing success obtained on opening day of trout season in 1953 showed a catch of 2.71 trout per angler. Similar figures of in54, the year following total treatment, are lacking. The 1955 creel census showed a catch of 1.00 trout per angler, which is less than half as good as in 1953. No rough fishes were recorded in any of these years.

Warm Springs Creek was fully treated in fall of 1953. Prior to treatment, anglers averaged 4.52 trout apiece. The first year following treatment, 1954, the take jumped to 9.58 trout per angler, but by 1955 the catch dropped to 5.44 trout per angler. This figure is still almost 1 trout per angler better than the figure for 1953. Of the three years checked, only in 1955 were rough fish recorded in the catch. These were 3 Sacramento squawfish and 1 sucker.

Following chemical treatment in the summer of 1952, the catch per unit of effort for Big Sulphur Creek jumped from a figure of 0.17 trout per angler in 1952 to 10.76 trout per angler in 1953. By 1954 the catch had dropped to 8.40 trout per angler and in 1955 the catch dropped still further to 6.87 trout per angler, although this figure is still much greater than was obtained prior to treatment. Only 1 rough fish was recorded for each of the last two years! 1 Sacramento squawfish in 1954 and 1 sucker in 1955.

COMPARISON OF CREEL CENSUSES ON SELECTED STREAMS  
OF THE RUSSIAN RIVER DRAINAGE ON THE OPENING DAY OF  
TROUT SEASON FOR THE PAST FEW YEARS

Stream and Year	No. of Cars counted	No. of Anglers Checked	Total Hours Fished	Total RT-SH Taken	RT-SH per angler	RT-SH per Angler Hr	No. of Limits	No. of Zero Catches	No. of Rough Fishes
Dry Creek <sup>1</sup>	(1953)	-- <sup>2</sup>	7	--	19	2.71	--	--	0
	(1954)	--	24	--		(up to	--	--	0
	(1955)	12	15	61	15	6)	0.25	0	0
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Warm Springs Cr.	(1953)	--	23	--	104	4.52	--	--	--
	(1954)	69	19	50	182	9.58	3.64	4	0
	(1955)	73	45	173	245	5.44	1.42	7	9
									3 Sacto. squaw-fish 1 sucker
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Big Sulphur Cr.	(1952)	--	6	--	1	0.17	--	0	5
	(1953)	--	68	--	732	10.76	--	18	--
	(1954)	39	30	122	252	8.40	2.07	8	3
	(1955)	46	23	134	158	6.87	1.18	5	3
									1 Sacto Squaw-fish 1 Sucker
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Maacama Cr.	(1953)	--	6	--	48	8.00	--	0	0
	(1954)	--	58	203	141	2.43	0.69	--	--
	(1955)	28	22	99	82	3.73	0.83	0	7
									1 Sacto. Squaw-fish.
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1 The streams were chemically treated in the summer of the years indicated here: Dry Creek, 1952, 1953; Warm Springs Creek, 1953; Big Sulphur Creek, 1952; Maacama Creek, 1953.

2 Dashes indicate information is lacking or incomplete.

Maacama Creek was chemically treated in the fall of 1953. On the opening day of trout season in 1953, 6 anglers had caught 48 trout for an average of 8.00 trout each. Following treatment, the catch per unit of effort dropped to 2.43 trout per angler in 1954 and rose slightly to 3.73 trout per angler in 1955. One Sacramento squawfish was recorded for 1954.

### CONCLUSIONS

1. The results of opening day of trout season creel censuses of Dry, Warm Springs, Big Sulphur and Maacama Creeks showed no definitely uniform overall pattern.
2. On one stream where creel censuses are reasonably complete for the whole period, it can be seen that following chemical treatment there is an initial large increase in the catch of trout per unit of effort, followed by a more gradual decrease toward *the pre-treatment level.*
3. The present creel census results are insufficient in themselves to prove a correlation between chemical treatment and fishing success.
4. Additional creel censuses in subsequent years will be needed to provide enough data to indicate real trends or patterns.
5. The present records are not complete enough for the pre-treatment years to make a comparison on numbers of rough fishes caught.
6. Rough fishes were proved to be present in these streams after chemical treatment.
7. To learn the extent of the return of rough fishes to these streams, supporting evidence obtained by electro-sampling will be necessary.

### RECOMMENDATIONS

It is recommended that creel censuses on Dry, Warm Springs, Big Sulphur and Maacama Creeks for the opening day of trout season be continued through the subsequent five years on an intensive basis as carried out during 1955. This will provide figures which will permit a more adequate measure of the changes resulting from the rough fish control project. Specifically it will show:

1. Increase or decrease in numbers of rough fish in the fishery.
2. Changes in catch per unit of effort for yearling steelhead and rainbow trout.

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