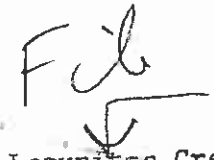


File: —  Lagunitas Creek, Marin County

Lagunitas Creek (also called Papermill Creek) is the most important spawning and nursery stream for salmonids in Marin County. In addition to the main stream, many tributaries contribute to salmonid reproduction. Olema Creek, which joins Lagunitas Creek near the tidewater area at Point Reyes Station shares with it the same estuary to Tomales Bay. Olema Creek may be considered an independent drainage with a fishery potential almost equal to that of Lagunitas Creek for its size.

The Lagunitas Creek drainage has two barriers which limit the original stream area available to salmonids. These are Peters Dam which impounds Kent Lake, and Nicasio Dam on Nicasio Creek.

Nicasio Dam, located about one mile above the confluence of Nicasio Creek with the main stream, forms an impassable barrier.

As compensation for blocking the run of salmonids because of the construction of the dam, the Marin Municipal Water District constructed and maintains an upstream trapping facility on Nicasio Creek below the dam. This facility is operated by DFG personnel, who trap adult salmonids migrating upstream and transport and release the fish at the head of Nicasio Reservoir, where the salmonids may enter either Nicasio or Halleck Creeks to spawn. Downstream migrant traps are operated on both creeks to catch young salmonids, which are transported and released below Nicasio Dam, where they may reach the ocean via Lagunitas Creek and Tomales Bay.

Spawning and Nursery Areas

About 34 miles of stream, excluding Nicasio and Halleck Creeks above Nicasio Reservoir, are available as silver salmon and steelhead spawning and nursery areas. These are:

Lagunitas Creek, from Tomales Bay to Peters Dam

16 miles

Olema Creek, from juncture with Lagunitas Creek to vicinity of Five Brooks	10 miles
San Geronimo Creek	4 miles
Devils Gulch	3 miles
Nicasio Creek, from juncture with Lagunitas Creek to Nicasio Dam	1 mile

Most of the stream area available to salmonids runs through privately owned land. Only 4 miles of stream running through Samuel Taylor State Park is on public land. The White House pool area and Nicasio Creek below the dam, are not public land, but angling is permitted on them.

Angling Use

Angling use of the summer fishery is not known, but is considered light. In 1968 some creel checks were made from the Inkwells to Tomales Bay. The results follow:

<u>Date</u>	<u>Anglers Checked or Counted</u>	<u>Fish Caught</u>
April 27 (Opening Day)	65	
April 28 Sunday	120	
May 4 Saturday	16	20
May 26 Sunday	10	26
June 8 Saturday	15	22
June 9 Sunday	4	12

Past records of creel checks made by wardens in the area may shed more light upon angler use, but the concensus is that except for angler use early in the season, angler use dwindles to an insignificant number as the season progresses.

yes
^

Management

Lagunitas Creek is managed as a silver-salmon and steelhead stream. Catchable trout are not stocked. In addition to operating the upstream trap on Nicasio Creek during the winter, and the downstream migrant traps during the spring, the DFG also stocks silver salmon fingerlings in Nicasio Creek below the dam to build up the run. A summary of silver salmon stocked follows:

<u>Date</u>	<u>Size</u>	<u>Number of Fish</u>
11-13-63	19/1b	9,500
11-26-63	16/1b	12,800
12-12-63	15/1b	6,000
12-13-63	15/1b	10,500
12-14-63	15/1b	10,700
1-8-64	1.5/oz	4,450
11-24-64	8.7/1b	3,525
3-15-66	19.5/1b	40,000
3-16-67	8.7/1b	40,000
2-27-68	15/1b	20,000

Population Sampling

During 1968 some population sampling was conducted with the use of a cresylic acid compound in areas blocked off by seines to prevent fish escapement. The method used was to introduce the chemical at the head of a riffle to collect distressed fish in hand nets and place them in tubs of fresh water. The fish were then identified and measured. This method gave a much better population sample than could be obtained with seines, since the stream bed was rocky and bolder strewn. The results are still on the conservative side, as care had to be taken not to kill fish. This method of fish collection is effective but risky, and was abandoned when water flows declined and chances of a fish kill increased.

A summary of the results of salmons caught in Lagunitas Creek follows:

318 feet of stream sampled = 95" riffle

215" pool

Total Silver Salmon 33

Total Steelhead 59

Lagunitas Creek at Samuel Taylor Park boundry near entrance to Kent Lake
June 5, 1968

Area sampled 166 feet = 47 feet riffle

119 feet pool

Fork Length in inches			
0-1	1-2	2-3	3-5
2 SS	1 SS	8 SS	1 SS
	6 R.T.	18 R.T.	2 R.T.
Total	12 SS 26 R.T.		2 Stickleback 1 Sucker 13.5

Lagunitas Creek, below Devils Gulch

July 2, 1968

Area sampled 142 feet - 46 feet riffle

96 feet pool

0-1	1-2	2-3	3-5
3 SS	3 SS	13 SS	2 SS
	8 R.T.	22 R.T.	3 R.T.
Total	21 SS 33 R.T.		9 Sculpin 4 Suckers

Nicasio Creek, at Bridge

Steelhead	26	Sucker	5
Silver Salmon	3	Goldfish	1
Sculpin	63		
Bluegill	12		
Roach	20		

usual check made late in the summer and fall showed good populations of salmonids in Lagunitas Creek and its tributary streams.

Discussion

Angling pressure and harvest of salmonids in the summer fishing is not known, but pressure is considered light and limited to a small portion of the drainage.

Young salmonids were abundant throughout the stream. It should be remembered that best only a small percentage (1-5%) of salmonids in a stream survive life in the ocean and return as adults. In view of the area utilized for spawning and the comparatively light angler use, it is doubtful if a summer closure would have any great effect on the fishes. However, as long as trapping operations are carried on and hatchery raised fish are stocked in Nicasio Creek, it is recommended that Nicasio Creek be closed at all times for angling. At the present time anglers use Nicasio Creek below the dam as a year around fishery using the feeble excuse that they are fishing for bluegill. This creates an enforcement problem and permits fishing in a small area which is heavily stocked.

The value of Lagunitas Creek is in its winter fishery. Management efforts should be directed on how to increase the angler harvest of adults in the tidewater area during the legal season.

Present runs of salmonids appear to be sufficient to maintain themselves through natural propagation as indicated by the large number of young found in the streams and tributaries.

The stocking of additional fish should not be construed as an attempt to increase natural propagation, but as an attempt to provide more adult fish for anglers to harvest.

To accomplish this it is recommended:

1. That larger sized silver salmon yearling be stocked as late in the spring as possible.
2. That a late running race of yearlings be planted. These fish are not natural propagation, but to augment the sport fishery. Therefore their run should peak during the legal winter sport season when the adults will be more vulnerable to angling.
3. That yearling fish be stocked near the tidewater area in both Lagunitas Creek and Olema Creek. If they are stocked late in the season they will not complete with fishes propagated in the stream, and will not be available to capture during the summer or winter trout and salmon seasons.

Find Bib # this one with

Creek Census Results at White House Pool Area
Lagunitas Creek (Papermill Creek), Marin County

Adult Salmonids

<u>1968</u>				
Date	Angler Interviews	Hours Fished	Fish Caught	Average Fish Per Hour
November 13	9	28.5	2	.07
" 14	7	16.5	0	.00
" 19	17	26.5	3	.11
" 19	18	48.5	4	.08
" 21	8	11.5	3	.26
" 22	11	26.5	2	.07
" 25	9	16.5	1	.06
Undated	29	63.5	4	.06
Totals	108	238.0	19 SS	0.08
December 2	14	19.5	2	.10
" 3	4	16.5	0	.00
" 6	4	5.0	0	.00
" 7	18	36.5	2	.05
" 7	8	15.5	1	.06
" 9	9	22.5	1	.04
" 27	26	84.0	3 SH	.03
Totals	83	199.5	6 SS - 3 SH	.045

<u>1969</u>				
Date	Angler Interviews	Hours Fished	Fish Caught	Average Fish Per Hour
January 2	12	31.5	0	.00
" 3	19	59.5	1	.02
" 14	6	11.0	0	.00
" 15	15	52.5	6	.11
" 18	34	89.0	0	.00
Totals	86	243.5	7 SH	.028
February 8	14	53.0	4	.07
" 18	5	11.0	0	.00
" 20	16	32.0	7	.21
" 21	23	55.0	3	.05
Totals	58	151.0	14 SH	.09
Grand Totals	335	832.0	49	.06

<u>1971</u>				
Date	Angler Interviews	Hours Fished	Fish Caught	Average Fish Per Hour
February 22	35	51.0	3 SH	.058
" 24	17	25.5	1 SH	.039
Totals	52	76.5	4 SH	.052