



5/97 new Copy to Eric Gerstung

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To: DFG Files
All Survey Participants

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② File FM: Humboldt Co

Field Note

Subject: 1996 Mad River Summer Steelhead Snorkel Survey Summary
Mad River Campground to North Bank Road (69.3 miles)

The 1996 snorkel survey was successfully completed from the Mad River Campground (3.5 miles below Mathew's Dam) to Deer Creek by the United States Forest Service; Deer Creek to Mad River Hatchery by Simpson Timber Company; and Mad River Hatchery to North Bank Road by Natural Resources Management Corporation and Fish and Game personnel.

The 1996 Mad River summer steelhead survey was conducted on August 26 and 27, for the most part. A two-mile section from Mad River hatchery to Blue Lake and one-mile section from Arcata Readimix's gravel plant to North Bank Road was surveyed on August 23 and 28, respectively because of time constraints.

The snorkel survey was made to count adult (over 16" total length) and half-pounder (12"-16" total length) steelhead. Steelhead were also categorized as having an adipose fin clip (ad-clip), no fin clip (no-clip), or unknown (unk) if a clear view of the fish was not possible. A total of 515 adult and 26 half-pounders were observed. Approximately 10% of all adult fish observed were adipose fin-clipped. No marks were found on half-pounder steelhead. Approximately 71% of all marked fish were found below the hatchery, and most (>50%) were found below Highway 299. The 1996 population information is presented in Table 1. by stream reach, age class and fin mark.

Table 1. Number of Summer Steelhead By Stream Reach

	Adult SH			1/2 pounders		
	no clip	ad clip	?	no clip	ad clip	?
1. Mad River Campground to Deer Creek	5					
2. Deer Creek to Humbug Creek	305					
3. Humbug Creek to Swing Bridge	38		34	5		5
4. Swing Bridge to goodman Prairie	2	6	1			7
5. Goodman Prairie to Camp Gate North			1			
6. Camp Gate North to Butler Valley Ranch	3					
7. Butler Valley Ranch to 4510 Road	4	1	13			
8. 4510 Road to 4090 Road		3	4			1
9. 4090 Road to Hatchery		2	5			1
10. Hatchery to North Bank Road	51	29	8	7		
Total	408	41	66	12	0	14

The 1994 through 1996 survey results are presented in Table 2. The adult population is ≥ 500 fish for the second consecutive year. Surveys prior to 1994 were limited to the upper river and did not include Simpson Timber Company land where most fish are found. Results from prior surveys should be viewed with caution.

Table 2. Trend Data for Mad River Summer Steelhead

Year	Adult SH			1/2 pounders		
	no	ad		no	ad	
	clip	clip	?	clip	clip	?
1994	265	3	19	67	0	105
1995	400	6	163	4	0	17
1996	403	41	71	12	0	14

Ancillary information regarding other sensitive species, especially western pond turtle and yellow-legged frog was also gathered to meet the needs of participating members. This data is presented in Table 3. The data can be interpreted for the presence (or in this case absence) of spring-run chinook and juvenile coho and chinook.

Table 3. Observations of Other Sensitive Species

	<u>Turtles</u>	<u>Y-L Frog</u>	<u>Other</u>
1. Mad River Campground to Deer Creek			
2. Deer Creek to Humbug Creek		yes	
3. Humbug Creek to Swing Bridge	4	yes	
4. Swing Bridge to Goodman Prairie	13	yes	
5. Goodman Prairie to Camp Gate North			otter/newt
6. Camp Gate North to Butler Valley Ranch	9	yes	
7. Butler Valley Ranch to 4510 Road	3		
8. 4510 Road to 4090 Road	1		bald eagle
9. 4090 Road to Hatchery			
10. Hatchery to North Bank Road			

Raw data sheets are available on request

Spring-run salmon, juvenile coho and chinook were not observed this year, but yearling steelhead were numerous in all reaches of the river. A total of one smallmouth bass was observed in section one above the barrier falls, as well as, one summer steelhead carcass in section 2, which had no sign of injury.

Temperature increased with both downstream distance and time of day, but generally diurnal temperature variance was 2°C in most reaches. The lowest temperature was 18.3°C, reported at 8 a.m. on a foggy morning near Mad River hatchery and the warmest

temperature was 24°C, recorded at 3:30 p.m. near Butler Valley.

Barriers

Most fish were observed 1 mile downstream from Deer Creek and another large group was reported below Humbug Creek. This was the same scenario in 1994 and 1995. These areas are suspected to be partial barriers.

Acknowledgement

The 1996 Mad River snorkel survey was successfully completed due to the participation and cooperation of Simpson Timber, Natural Resources Management, USFS and DFG. The many Simpson Timber Company employees are especially acknowledged not only for their participation, but also for enduring the rigors of difficult, and often dangerous river reaches.

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