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To: Interested Parties

From: Thomas J. Weseloh
North Coast Manager, California Trout

Subject: 1996 Mattole River Summer Steelhead Survey Summary
Various reaches and spot checks (25.3 miles total)

The 1996 Mattole River Summer Steelhead Survey was conducted on July 24-26 and 31, 1996. Several reaches and spot checks (a total of 25.3 miles) were surveyed in an attempt to identify summer steelhead and their preferred holding habitat. A snorkel survey was made to observe adult (over 16" total length) and half pounder (12" to 16" total length) summer steelhead. A total of 12 adults and 34 half pounders were observed.

Ancillary information was also gathered to meet the needs of participating members, for example the presence of turtles. The data can be interpreted for the presence or observed absence of other fish species such as juvenile steelhead, coho salmon and chinook salmon.

The attached report also contains information on survey reaches, distances, personnel, other species observed, stream temperatures and future recommendations.

Due to the increasing need to gather data and tightening budgets it is important to implement cooperative efforts. This survey is an excellent example of how government agencies and fishery restoration advocates can cooperatively work together to improve our fishery resources. All parties involved deserve special recognition.

This 1996 survey was cooperatively conducted by the United States Fish and Wildlife Service, Mattole Salmon Support Group, Humboldt Fish Action Council and California Trout.



Dive Segments, Mileage, and Personnel

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1. Lost River to Gibson	2.0
Vic Sundberg*, Rick Quihalla*, Mark Catalano	
2. Raintree to Eubanks Cr.	3.0
Maureen Roche*, Tom Weseloh*	
3. Eubanks Cr. to Bear Creek	4.9
Vic Sundberg*, Rick Quihalla*, Mark Catalano	
4. Bear Cr. to Mattole Canyon Cr.	2.9
Tom Weseloh*, Jan Duncan-Vaughn	
5. Honeydew slide to Honeydew Cr.	1.0
Maureen Roche*, Bill Malinowski	
6. Upstream of Honeydew Br. (0.5 miles) to Bundle Cr.	1.7
Maureen Roche*, Jan Duncan-Vaughn	
7. Granny Cr. to Bridge above Squaw Cr.	3.8
Tom Weseloh*, Bill Malinowski	
8. Squaw Cr. to Indian Cr.	3.3
Maureen Roche*	
9. Stansberry Cr. to Ocean	1.0
Maureen Roche*	

SUBTOTAL 23.6 miles

Additional Survey Areas

10. Thompson Cr. (lower 0.25 miles)	0.25
Vic Sundberg*, Rick Quihalla*, Mark Catalano	
11. Bear Cr. (lower 0.6 miles)	0.60
Tom Weseloh*, Jan Duncan-Vaughn	
12. Honeydew Cr. (lower 0.6 miles)	0.60
Maureen Roche*, Bill Malinowski	
13. 3 pools near Thorn Junction (0.25 miles)	0.60
Jan Duncan-Vaughn, Bill Malinowski	

SUBTOTAL 1.7 miles

TOTAL 25.3 miles

* denotes prior summer steelhead diving experience

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Reach	Adult SH	Half Pounder SH	Coho	Chinook	Turtles
1.	0	0	yes	yes	no
2.	4	3	yes	yes	yes
3.	6	6	no	no	yes
4.	0	1	no	no	no
5.	0	0	no	no	no
6.	2	14	no	no	yes
7.	0	1	no	no	yes
8.	0	8	no	no	yes
9.	0	0	no	no	no
10.	0	0	?	?	?
11.	0	1	no	no	no
12.	0	0	no	no	no
13.	0	0	no	yes	no
TOTALS	12	34			

Other sightings: juvenile steelhead were seen in all reaches, juvenile chinook and coho salmon were only observed in reaches 1, 2 and 12 (none were observed downstream of Noonings Creek), western pond turtles (in reaches 2,3,6,7 and 8), leeches, threespine stickleback (from reach 1 downstream), lamprey (lots of carcasses and redds--esp. in reach 2), mergansers, osprey, kingfishers, ouzel, blue heron, freshwater clams, rough skin newts, assorted frogs and tadpoles, snakes (garter, gopher, rubber boa), pacific giant salamander, bull frog tadpoles, yellow legged frogs, and lots of humans were observed.

Garbage: lots of garbage in accessible areas. Culverts, culvert stakes, cables, tires, rafts, toys, dolls, bats, bottles, cans, milk crates, lighters, scrap metal, skateboard, pipe (metal and plastic), paper, plastic, signs, lumber scraps, and many other assorted pieces of garbage were seen.

Fishermen/tackle: Only one fisherman was encountered. He was using a handline with bait (night crawler) and indicated catching small ones "nothing bigger than my hand". He was located about 0.2 miles below Noonings Creek. A few other lines and lures were found -- some in the closed to all fishing areas (above Honeydew Creek).

Cold water refugia: Cold water refugia appears to be very important to both adult and juvenile salmonids in the Mattole River basin. Many deep pools were stratified and were noticeably cooler on the bottom. Seeps, springs, and isolated cold pools were observed throughout the basin. There was a direct relationship between cold water refugia and salmonid habitat utilization. In some areas no juveniles were seen for long distances (over 0.5 miles) and then several hundred juveniles would be congregated in a cold water area.

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Stream Temperatures

July 24, 1996

Reach 1:	site #1	1100 hrs	58 F
	site #2	---	58 F
	site #4	---	58 F
	site #5	---	58 F
	site #8	1300 hrs	58 F
	site #11	1300 hrs	61 F
	site #13	1315 hrs	60 F
	site #14	---	59 F
	site #15	---	60 F
	site #18	1415 hrs	61 F
	site #19	1445 hrs	63 F
	site #26	1545 hrs	63 F
Reach 2:	Mainstem 1.25 upstream of Noonning Cr.	1315 hrs	68 F
	Mainstem below Noonning Cr.	1500 hrs	69 F
	Noonning Cr.	1500 hrs	61 F
	Mainstem at unnamed trib. (river right)	1545 hrs	69 F
	Unnamed trib. (river right)	1545 hrs	64 F
	Mainstem above Eubanks Cr.	1900 hrs	74 F
	Eubanks Cr.	1900 hrs	68 F

July 25, 1996

Reach 3:	Mainstem above Eubanks Cr.	0945 hrs	66 F
	Mainstem below Eubanks Cr.	0945 hrs	65 F
	Eubanks Cr.	0940 hrs	59 F
	Unnamed trib. (river left)	1011 hrs	60 F
	Mainstem at unnamed trib. (river left)	1022 hrs	65 F
	Unnamed trib. (river left)	1102 hrs	64 F
	Mainstem (at cable car)	1155 hrs	69 F
	Mainstem	1346 hrs	77 F
	Bear Cr.	1435 hrs	74 F
Reach 4:	Mainstem above Bear Cr.	1315 hrs	78 F
	Bear Creek	1315 hrs	73 F
	Mainstem below Mattole Canyon Cr.	1530 hrs	80 F
Reach 5:	Mainstem	-- hrs	74 F
	Honeydew Cr.	-- hrs	69 F

July 26, 1996

Reach 6:	Mainstem	1200 hrs	76 F
	Unnamed trib. (river right)	1300 hrs	61 F
	Upper North Fork Mattole	1400 hrs	78 F
Reach 7:	Mainstem below Granny Cr.	1130 hrs	71 F
July 31, 1996			
Reach 8:	Mainstem at A.W. Way	1200 hrs	74 F
	Unnamed trib. at Buck's (river right)	1400 hrs	61 F
	Mainstem at Buck's	1530 hrs	74 F

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Future Recommendations

1. Continue coordinated, cooperative, standardized annual surveys for summer steelhead in entire anadromous reach.
2. Identify cold water refugia for adult and juvenile salmonids. Utilize information to develop restoration/habitat enhancement strategies for increasing juvenile and adult salmonid survival.
3. Encourage regulatory agencies, public and private landowners to review land use practices , water management and all other potential impacts related to summer steelhead and their habitat.
4. Promote studies that increase knowledge of summer steelhead life cycles and habitat needs (i.e. spawning-timing and location, genetics, etc.).
5. ~~INCOMPLETED~~