CALIFORNIA TROUT

KEEPER OF THE STREAMS

Silver Anniversary

March 7, 1998

To: All Interested Parties

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

Subject: 1997 Mattole River Summer Steelhead Survey Summary

The 1997 Mattole River Summer Steelhead Survey took place July 16-19 and 21. The purpose of this survey was to identify summer steelhead and their preferred holding habitat on the Mattole River. Snorkel observations were conducted on designated reaches and spot-check locations by five pairs of surveyors. Observations of steelhead were recorded by size class; steelhead over sixteen inches total fork length are adult fish, and steelhead from twelve to sixteen inches are half-pounders. A total of sixteen (16) adults and nineteen (19) half-pounders were observed over more than thirty-six miles surveyed.

This report includes information on stream and ambient temperatures, survey reaches, distances, personnel, and future recommendations. Further observations were recorded for presence of juvenile salmonids, as well as other species present on the Mattole River. This type of information can be useful in determining the needs and habits of local riverine creatures, and thereby establish land use practices that will promote stewardship and conservation.

The Mattole River watershed has received attention in recent years due to losses of habitat and associated species of aquatic animals, especially salmonids. The growing concern has created an awareness of the watershed's sensitivity to human activities, as well as the inherent and economic value of local natural resources. Restoration efforts have sprung up in attempt to reduce impacts and protect for the future, but there is still much unknown. Monitoring projects such as this provide meaningful biological information where gaps exist, and further insight about the overall health of the system. Restoration and monitoring projects should be prioritized according to cost effectiveness and protection of vital refugia, and combined with cooperative conservation and management endeavors.

This survey was made possible through the cooperative efforts of the Mattole Salmon Group, California Trout, and the Humboldt Fish Action Council.

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REACH	ADULTS	HALF-LBS	COHO	CHINOOK	TURTLES
1	0	0	Yes	Yes	No
2	0	1	Yes	No	No
3	0	0	Yes	Yes	No
4	0	3	Yes*	No	Yes
5	7	0	No	Yes	No
6	0	0	No	No	No
7	0	2	No	No	No
8	1	4	No	No	Yes
9	5	3	No	No	Yes
10	1	0	No	No	No
11	--	--	--	--	--
12	0	3	No	No	No
13	0	1	No	Yes	Yes
14	1	0	No	No	No
15	1	1	No	No	No
16	0	1	No	Yes**	No
Total	16	19	--	--	--

Note: Reach eleven was not surveyed due to access denial by property owner. Future surveys should continue to seek permission to include this stretch.

*On reach four, the only coho juvenile observed was at the mouth of McKee Ck. — last sighting of coho for the entire survey.

**Over 6,000 chinook juveniles found in lagoon at mouth of Stansberry Ck. — the first time in ten years.

Cold water refugia appears to be very important to both adult and juvenile salmonids during summer in the Mattole River basin. The available deep pools were stratified and noticeably cooler at the bottom. Seeps, springs, and cold pools were observed throughout the basin, though often isolated by stretches of high temperature waters between them. There was a direct relationship between cold water refugia and salmonid habitat utilization. In some areas no juveniles were seen for long distances (>0.5 miles), and then several hundred would be found congregated at a cold water source.

Other sightings: juvenile steelhead, coho, and chinook; yellow-legged frogs; bullfrogs; three-spined stickleback; lamprey (lives, redds, and carcasses); mergansers; American dippers; rough-skinned newts; pacific giant salamanders; garter snakes; yellow racers; osprey; leeches; kingfisher; freshwater clams; black-tailed deer; wood ducks; and humans.

Garbage: lots of garbage found throughout survey, including clothes, tires, food wrapping, paper, rusted pipes, plastic pipes, and other miscellaneous trash.

Human encounters: three children with fishing rods were encountered on reach four, and informed of closure to fishing in the area; local resident reported two 30-in. adult steelhead at mouth of Sholes Ck.; four swimmers upstream of bridge on reach seven; six swimmers at Peeler hole on reach ten; fishermen downstream on reach fifteen.

Recommendations:

- Have the four villages (Whitethorn, Ettersburg, Honeydew, and Petrolia) or local schools organize to pick up trash along a stretch of fifteen miles each. Compare the amount collected by weight and award a prize.
- Continue attempts to retain large woody debris and provide complex habitat.
- Compare collected temperature data with hobo temperature data, and overlay these with fish distributions.
- Reestablish riparian forest in effort to provide shade and cooler temperatures.
- Catalog all water withdrawals and their locations. During hot summer months, water removal may play a critical role in high temperatures
- Incorporate survey reports into a CDFG Summer Steelhead Management Plan.
- Follow through with prior recommendations to determine their effectiveness toward improving watershed conditions of the Mattole River.

Reach		Personnel	Mileage
1	Phillips to Big Alder (6 pools)	Maureen Roche*, Laurel House	1.6
2	Lost River to Gibson Ck.	Tom Weseloh*, Danny Gainok	2.0
3	Thompson Ck. (6 pools, plus dammed lake)	M. Roche*, L. House	0.3
4	McKee Ck. to Raintree	T. Weseloh*, D. Gainok	1.8
5	Raintree to Eubanks Ck.	Colum Coyne*, Noah Stafslien	3.3
6	Eubanks Ck. to Hart's Ck.	C. Coyne*, N. Stafslien	1.9
7	Bear Ck. to Mattole Canyon Ck.	M. Roche*, L. House	3.4
8	Honeydew Slide to Woods Ck.	T. Weseloh*, D. Gainok	2.9
9	Lower Honeydew Ck. to Honeydew Br.	Deva Taylor, Jeremy Wheeler	1.0
10	Woods Ck. to Triple Junction High School	M. Roche*, L. House	3.4
11	Cook Ck. to Squaw Ck.	access not granted, no survey	4.6
12	Squaw Ck. to Lindley Bridge	D. Taylor, J. Wheeler	2.4
13	Lindley Bridge to Conklin Ck.	D. Taylor, J. Wheeler	4.5
14	Conklin Ck. to Hideaway Bridge	D. Taylor, J. Wheeler	2.8
15	Hideaway Bridge to Rex's	Ellen Taylor, Michael Evenson	2.0
16	Rex's to Ocean	D. Taylor, Dick Scheinman	3.0
Total	Mattole Summer Steelhead Survey		36.3** miles

*Denotes prior summer steelhead diving experience.

**Total mileage equals 40.9, minus reach eleven, equals 36.3 miles surveyed this year.

Stream and Ambient Temperatures*						
Date	Location	Reach	Time	Tributary	Mattole R.	Air
July 16, 1997	Downstream of Arcanum	1	1230	62	--	80
	Phillips Ck.	1	1300	58	60	--
	Pipe Ck.	1	1330	dry	60	--
	Big Alder	1	1400	--	60	--
	Lost River	2	1250	58	59	--
	Thompson Ck.	2	1350	61	62	--
	Baker Ck.	2	1450	61	63	--
	Gibson (culvert)	2	1555	58	65	--
	Thompson Ck.	3	1415	70	--	--
	dammed lake	3	--	64	--	--
	Cas.	3	--	64	--	--
	Yew Ck.	3	--	63	--	--
	Raintree	5	0930	--	--	--
	Nooning Ck.	5	1200	60	--	--
	Eubanks Ck.	5	1700	60	--	--
	Squaw Ck.	12	1200	70	73	73
	small trib., left	12	1240	59	--	--
	small trib., right	12	1500	62	--	--
	small trib., left	12	1700	62	78	--
July 17, 1997	McKee Ck.	4	1150	58	63	--
	Bridge Ck.	4	1350	62	65	--
	Sinkyone Ck.	4	1420	59	65	--
	small trib., right	4	--	59	67	--
	Bear Ck.	7	1315	70	74	68
	Blue Slide	7	1430	64	76	--
	Mattole Canyon Ck.	7	1530	dry	76	--

Stream and Ambient Temperatures*						
Date	Location	Reach	Time	Tributary	Mattole R.	Air
	Lindley Bridge	13	1200	--	73	--
	McGuiness Ck.	13	1715	69	--	--
July 17, 1997	Conklin Ck.	13	1720	71	75	--
July 18, 1997	creek above slide, right	8	1110	58	74	--
	Throat Ck.	8	1220	76	73	--
	Honeydew Ck.	8	1320	72	77	--
	Upper N. Fork Mattole	8	1410	81	76	--
	Bundle Prairie Ck.	8	--	dry	--	--
	Woods Ck.	8	1510	67	79	--
	Woods Ck.	11	1100	64	74	72
	Dirty Ck.	11	--	dry	--	--
	Kendall Ck.	11	--	dry	--	--
	Saunders Ck.	11	--	dry	--	--
	Cook Ck.	11	--	dry	--	--
	Upper Mattole Bridge	11	1500	--	79	80
	Conklin Ck.	14	1200	--	72	--
	side pool, right	14	1205	69	--	--
	Petrolia Bridge	14	1515	--	74	--
July 21, 1997	main channel hole, downstream Stansberry Ck.	16	1320	--	72	--
	Stansberry Ck.	16	1415	60	--	--
	main channel pool, upstream Stansberry Ck.	16	1430	--	74	--

*All temperatures given in degrees Fahrenheit. No temperatures collected for reaches six and nine.