

EATING TOTEM SALMON:
EXPLORING EXTINCTION AND COLLABORATIVE RESTORATION
IN A COASTAL CALIFORNIA WATERSHED COMMUNITY

HUMBOLDT STATE UNIVERSITY

By

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ABSTRACT

EATING TOTEM SALMON: EXPLORING EXTINCTION AND COLLABORATIVE RESTORATION IN A COASTAL CALIFORNIA WATERSHED COMMUNITY

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Wild Pacific salmon populations are declining throughout California. To strengthen applied salmonid restoration ecology, increased watershed-based understandings of socio-cultural issues thwarting recovery efforts are needed. This study explored perceptions of viabilities of threatened Mattole River salmonids and feelings concerning current human-fish interactions among local residents and fishermen. This qualitative research employed a social constructivist framework and phenomenological orientation. Narrative empirical evidence from lived experience is presented in conjunction with semi-structured interview data from watershed residents, salmon restorationists, poachers, and catch and release fishermen. While many perceive that Mattole coho salmon are facing extinction and consider Chinook salmon's future nearly as tenuous, a minority of residents believe that Mattole River salmon are abundant. The latter approve and defend salmon poaching, whereas the majority strongly condemns it. Feelings are modulated by perceived threats to the fish runs, and by local identity. Poaching is justified through use of certain neutralization techniques, primarily

condemnation of the local nonprofit salmon organization, and claims of local entitlement. The ways people view restoration efforts, poaching, and catch and release fishing in the Mattole River are affected by socio-cultural influences, which constitute barriers to collaborative restoration. Joint fact-finding and listening are among recommendations for trust-building techniques designed to increase recognition of the shared desire for abundant salmon and foster civic response to poaching. The major aim of this research is to inspire improved collaborative and interdisciplinary efforts to address the more significant challenges to salmon recovery, in the Mattole River and beyond.

Key words: threatened and endangered species, salmon, coho, Chinook, steelhead, watershed restoration, ecological restoration, Mattole River, fishing, poaching, perception, lived experience, narrative scholarship, phenomenology.

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I am so grateful to my mother Coco and my father Stan, who together followed the wild notion of raising their two children on an island in the deep green watery domain of salmon, orcas, and winter storms. Dad, thank you for giving me that Chinook tail to gnaw on as an infant. Be there just one, I suspect that was the experience which sparked the writing of this thesis. I am grateful also to my brother Hans, my first fishing partner.

Shortly before this thesis was finalized, Robin Kimmerer spoke to an audience at HSU about the evolution of restoration ecology and the singular importance, today, of restoring human relationships with places, plants, and animals – what she called biocultural restoration. Her main point recounts that put forward in 1999 by Freeman House in his book, *Totem Salmon*: focus on, celebrate, and when forgotten, relearn

relationships. Re-acquainting ourselves with creatures offended by recent human relationships gone awry requires careful consideration. We are presently called on to settle ourselves, admit the limits of what we think we know, open our senses, and try to make sense of old stories and how they apply in these complicated times, before we act. Perception; respect and reverence; generosity; giving of thanks: to Robin Kimmerer, Marlon Sherman, Steve Knox, David Abram, Freeman House and Ali Freedlund, thank you for these teachings. I am also grateful to Kathleen Dean Moore, with whom a brief conversation on a rainy day in Corvallis in 2010 helped me clarify my interests. This thesis scratches awkwardly at the surface, but I hope in the future it might reveal itself as some kind of beginning.

Sincere thanks to my committee members, Yvonne Everett, Corey Lewis, and Marlon Sherman for your genuine interest, encouragement, and flexibility throughout my research and writing process. Rebekah Rafferty was a cherished comrade in explorations of both the literature and the visceral magic of animal encounters; thank you for your brilliant friendship.

My deepest thanks are to Nathan Queener, for sharing my curiosity and love for wild salmon and forests and the Mattole River, and for constantly inspiring me with your innate wisdom on how to live.

This thesis is dedicated to wild salmon.

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INTRODUCTION

Home River

“This is our home river. This is the river we care most about.”

– Interviewee

“Each place its own mind, its own psyche. Oak, madrone, Douglas fir, red-tailed hawk, serpentine in the sandstone, a certain scale to the topography, drenching rains in the winter, fog off-shore in the summer, salmon surging in the streams—all these together make up a particular state of mind, a place-specific intelligence shared by all the humans that dwell therein, but also by the coyotes yapping in those valleys, by the bobcats and the ferns and the spiders, by all beings who live and make their way in that zone. Each place its own psyche. Each sky its own blue.”

– David Abram, 1996. *Spell of the Sensuous*, p. 262

“This is home...The fishing is a big part of it. When you’re on the river when the sun comes up in the morning – and this is my river, our river – this is the place. It’s special. Simple as that.”

– Interviewee

October 16, 2011. Sunday.

At 6:30 AM it is dim but the sandy ground is dry at Mattole Beach campground.

The handful of other campers are all still asleep. It feels strange to be camping less than a mile from the place I so recently called home, but it feels good to be here nonetheless.

The life force of the watershed, the Mattole River, flows west into the Pacific just to the North, beyond the dunes.

The river mouth has been open for a couple of weeks, and there are adult Chinook salmon in the river. With the absence of steady rain, the river has been clearing up,

making them visible in the pools along the lower river. There are rumors of poaching at the Lower North Fork hole, and rumors that the game warden has been called. Everyone is wondering, “where are the big fish?” It is a common preoccupation among salmon restorationists, among poachers, among neighbors and kids who just want to catch a glimpse: the flash of a silver one, fresh from the ocean, swirling in a green pool below you. The desire for a close look has gotten me up early, after a late night. But first, there is a quiet bicycle ride up the unpaved, washboard section of Lighthouse Road.

At the Mattole Salmon Group clothesline, I gather my gear: wetsuit, neoprene hood and booties, gloves, mask and snorkel. I walk over to the deep pool near the office, clamber down the big rocks and logs placed there years ago to stabilize the river bank. The water is glassy and transparent in the morning light. I am not expecting to see anything, since one of my co-workers dove this pool just a few days ago, and reported no adult salmon. I see juvenile steelhead trout, no big fish. But just downstream, on the other side of an alder tree, I hear something break the water’s surface. The sound has a lazy, slow, and heavy quality. I squeeze between two alder trees and pick my way over the rocks to the edge.

In the green water shaded by the alders there is a large animal swishing its tail slowly side to side: a thick Chinook salmon circling in the pool. I catch my breath. The water is so clear, I can see the shape of the black spots on her back. She is about three feet long, and heavy-bellied. Another one, smaller and lighter colored but with black fins, follows her; then another, and two smaller Jacks – sexually mature but precocious male Chinook salmon, returning from sea earlier and considerably smaller than most adults.

Standing there, my grin is stretching from ear to ear. It is going to be a good day. I am not certain of my count, and I want to know if the wetsuit will be warm enough, so I decide to join them in the pool. Not wanting to spook them, I make my way upstream to a place where I can slip slowly and quietly into the water. As I lower the mask over my eyes and take the snorkel in my mouth, I sink into the morning water. It feels fine. I let go of the rock, and drift into the current of the river. It carries me slowly along, and I keep my arms and hands in close against my body, my legs still. I am hoping I can float past them peacefully as they circle in the pool below me. But before I get to where they are, I see large shapes shooting past me on the right: one, then a BIG one! then three, four, and five. I have scared them, and counted them, so it's best I leave. With some regret, I haul myself up out of the water, climb away from the edge of the pool, and walk back up the path to my bicycle.

Full of the thrill of the first fall salmon, I bike downriver towards the estuary. Near the first riffle, there is a recently completed river bank stabilization site where massive boulders and logs have been anchored into a slumping hillside. Just a month ago, an excavator was digging out deep holes in the riverbed here, priming the river to do its own scouring work. I wonder if any big fish have discovered this spot yet. I ease myself into the water at the base of a riffle, the current catches me and I bob along, brushing past boulders and into deep water. There is a branch protruding out into the current, and as I begin to glide past it, I see a Chinook, then another. I grab onto the branch and use it to hold myself still in the moving water. Chinook swirl below. Some smaller, sleeker steelhead trout are circling here too. The fish dart past me in rapid succession, circling

back downstream behind me. I try to catch sight of them as they circle around behind me, try to note how many have gone upstream as I count them. I think there are between six and nine. These fish are hard to count: unlike the group of five in the first hole, which all had distinct characteristics, these Chinook look like siblings. They are all roughly the same size and a similar shade of silver.

The Chinook are deep-bellied, with massive fan-like tails, sharply pointed at the upper and lower tips. Often during winter spawner surveys, the tails of Chinook appear dull, whitish, and worn down, either from digging redds in the spawning gravels, or from charging up through rocky shallow riffles. These fish, on the other, hand, are whole and silver, their oceanic sharpness reminiscent of tuna. They seem to slice through the water. Some come very close, languidly moving past, their clear watery eyes meeting mine.

I focus on the steelhead now, which tend to school a little more tightly. I guess there are ten of them; could be more. Would the magic of this moment change if those numbers were slightly different? Surely not; while some of my colleagues will appreciate an accurate number, I am here for different reasons. For a wild moment, I can bear witness to an ancient, bewildering migration in its freshest moment. These salmon embody an ocean home that I can never know; the closest glimpse comes in their sharp tails. Their saline eyes.

Biking a few miles up the road, I arrive at a steep, rickety ladder down to the river bar. I chug some water and grab a pear from my pack, and eat it during the hike upstream across the river bar to a very deep pool. Arriving there, I consider that with a little more

hiking upstream, I could be at the North Fork hole. Given the recent rumors of poaching there, I am curious to check out what fish are in that pool.

The North Fork empties into the river on the right bank, pouring through a substantial delta of deposited gravel that serves as an easy access point and parking lot for people and their trucks. I swim upstream along the left bank, peeking among boulder rip rap. No fish. I figure they are all over to my left in the swiftly moving water. At the upper extent of the pool, I head over towards the middle of the river, and turn to start floating down towards the North Fork confluence. I float through the whole pool in the swift water, looking below, out in front, and on either side, and there is not one adult salmon nor steelhead in the river at this spot. At first I exhale relief: none for the taking. Then another possibility hits me: they already got them.

Taking it in, I continue floating downstream, over a couple fast, shallow riffles, being careful not to knock my lower jaw on the rocks, then swirling into a shady willow bank, where one lucky year I saw a rare summer steelhead. My mind begins to drift as I settle into the water for a long float. I glance back out of the water to see if anyone saw me in the North Fork hole; there is no one on the river bar as far as the eye can see. It would have been nice to talk to some people on the river today, but it is trim season in Humboldt: a gorgeous sunny fall day, and so many people are holed up in their marijuana scenes. Do they know what they're missing outside? Three steelhead dart past, bringing me back to my immediate surroundings. I bring the Chinook search image back into my mind. For the next half hour, I swim along peacefully, noting where a large alder tree has recently fallen into the river, root wad and all, creating a scoured pool. This winter, its

branches will snag other debris floating downstream, making for a fabulous logjam for complex fish habitat. The river changes every year.

After a solid hour in the water, I have seen no more adult fish, despite floating twice through the deepest pool within miles. As I am bicycling back to the Mattole Salmon Group to stash my wetsuit and gear, a motorcyclist on a Honda dirt-bike, dressed in camouflage and with a black helmet obscuring his face, passes me. He stops and turns and yells at me, “hey! Did you see any salmon?”

“Who are you?” I ask. It’s Shawn¹, the Department of Fish and Game warden, looking rather local. I talk to him for just a couple minutes. He asks me if I saw any fish at the North Fork. I tell him no. “Damn,” he says, “I missed them.” He asks me if I saw any coho salmon. I tell him I’ve seen three adult coho salmon in this river in the last five years. He asks me if many people around here poach deer. I say I really don’t know. I leave, thinking, “Yeah, of course they do. But deer aren’t endangered.”

Why Poaching?

Poaching is not a major cause for the decline of Mattole salmon.

This may sound odd to those who witnessed truck loads of salmon being commercially hauled out of the Mattole Valley starting as early as 1883 and continuing

¹ All names of people interviewed, and local residents referred to during interviews, have been changed.

intermittently through the 1970s². Clearly this level of harvest had its impacts. Today, however, poaching is more like a drop in the bucket among runs of wild salmon whose abundance has been decreased primarily by landscape-scale changes in their freshwater ecosystem.

Throughout the process of interviewing people for this research, it was common to be asked something like, “but, why are you focusing on poaching now? I think it is pretty insignificant compared to the other issues.” Considering the impacts to salmon that geomorphic changes wrought on the Mattole River by vast levels of clear-cut logging and road building, followed by epic floods in 1955 and 1964, and also considering current obstacles such as low stream flows likely caused by a combination of forest stand dynamics, climate change, and human water use, I completely agree. In addition, contemporary concerns regarding the oceanic half of salmon’s existence – affected directly by oceanic productivity and nutrient cycling, as well as industrial-scale commercial salmon fishing – also ride closer towards the top of the list of major challenges. So, why focus on poaching? There are three reasons, two being practical and the last being at once personal and philosophical.

The first practical reason is that poaching provides a clear window into some of the cultural and political belief systems that confront nearly all aspects of salmon and watershed restoration in the Pacific Northwest. While the factors mentioned above – freshwater habitat impairment, water use, commercial fishing, climate change – all are

² See Appendix D for selections from newspaper clippings on Mattole River fish-related news dating from 1858 through the 1950s.

much larger issues challenging the recovery and survival of wild Pacific salmon, they do not exist in a vacuum. Author Jim Lichatowich, speaking to an audience at the 30th annual Salmonid Restoration Conference in California, invoked a metaphorical iceberg to describe this scenario: the “issues” are merely the visible tip, but the larger submerged parts “are the assumptions and myths about nature that guide our actions. In the submerged part are our stories.” Peoples’ opinions about poaching, I believe, clearly illuminate some of the fundamental socio-cultural realities complicating ecological restoration.

The second reason goes like this: while poachers today are indeed not the source of the decline in Mattole salmon numbers, they nonetheless operate within a system of such depressed salmon abundance that their takes do have the potential to adversely impact the survival of Mattole salmon populations. Today’s poachers in the Mattole Valley are not to blame for the state of the salmon. Yet taking any individual Mattole Chinook or coho salmon today represents a significant hit to the potential for restored abundance – or mere existence of these runs in the future. Looking for a moment solely at Mattole River coho, it is entirely possible that one individual adult coho salmon poached could, in a bad year, represent half of the total returning adults; taking the one female fish could mean the failure of a cohort³ of threatened coho salmon to reproduce. In those terms, if coho salmon are poached today, then poachers really could be seen as

³ Coho salmon in this region generally return as adults to spawn at age three. Thus in the Mattole as in other rivers, there are three distinct “year-classes,” or cohorts, of coho salmon.

responsible for the extinction of the run. It does not mean they played anything close to the largest role in the decline, but were, rather, the straw that broke the camel's back.

The third reason for this research begins with a personal affinity. I love salmon, and far more than studying them on paper, I love to stalk them, swim with them, fish for them, and eat them. My family background draws me to the sensuousness of salmon. I come alive when hearing the sound of them breaking the surface in streams that appear too small for their heavy bodies. I enjoy the smell of their flesh after they have labored over their redds and their rich bodies have just begun to give back to scavengers in the riparian zone. Though it has been a long time since my original home waters of British Columbia's Sutil Channel gifted this, the feel of a fiery salmon at the end of a handheld line is burned into me. The contents of my father's smokehouse and my mother's canning jars created this person. The most precious experiences of this life are those of embodied perceptions of salmon, when their sensuality transfers into mine. Protective as I may at times feel towards the salmon in the Mattole River, my research shows that this basic drive to connect physically with wild salmon is also a driving force among some who continue to poach them. Quite simply, this force fascinates me.

Though personal, this second basis for the present research also turns philosophical. My preoccupation with the nature of embodied perception begets the question: What are wild salmon worth? That is, what does their existence mean – to us, to other animals, and to the watersheds of western North America? How then shall we live and interact with them? How do we maintain or adapt our active relationships with endangered species? What are our individual and collective responsibilities? When cross-

pollinated with the aforementioned interest in direct embodied experiences of salmon, the topic of poaching threatened wild salmon in the Mattole River thus provides a perfect point of departure for these larger questions.

METHODS

The research topic explored in this thesis is the spectrum of perceptions regarding threatened salmon and steelhead populations and how local residents physically interact with them in the Mattole River watershed of Northern California. The Mattole River is home to three salmonid species: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus mykiss*), all three of which are listed as threatened under the Federal Endangered Species Act. Coho are additionally listed as threatened under the California Endangered Species Act. The Mattole has a long history of grassroots and collaborative efforts to prevent the extinction of these species by seeking to restore their populations to self-sustaining levels (House, 1999; Mattole Restoration Council, 2005). Numerous challenges exist and have been prioritized, mostly concerning the restoration of instream conditions, riparian forest conditions, and comprehensive ridgetop-to-river bottom ecological restoration efforts (Mattole Restoration Council, 1989; Mattole Restoration Council, 2005). In addition watershed education, mostly targeting Mattole youth, has been and continues to be carried out. Despite these efforts Mattole salmonid populations, particularly Chinook and coho salmon, continue to decline (Mattole Salmon Group, 2009). While it is largely believed that the primary reasons contributing to decreased populations relate to poor freshwater and ocean habitat conditions, concerns also exist regarding poaching and catch and release fishing in the Mattole River.

It is widely recognized that community attitudes surrounding watershed and salmonid restoration efforts play a major role in their success (Huntington & Sommarstrom, 2002; Jay, 1994; Leach, Pelkey, & Sabatier, 2002). Thus I researched community attitudes, focusing on the direct sensory perceptions and socio-cultural influences that shape those attitudes, specifically applied to fishing and poaching. Key questions included the following:

- What are current local perceptions of Mattole salmonid populations in regards to their long term viability?
- What is the spectrum of perceptions and feelings concerning the ways different people currently interact with salmonids in the Mattole? This question aims to address the fact that there are a number of different ways in which people interact with salmonids in the Mattole. These interactions are known to include: legal catch and release fishing for steelhead, illegal poaching of salmon and steelhead, and direct enhancement efforts to restore salmonid populations.
- From what sources do these perceptions concerning salmonid population viabilities and human interactions with salmonids derive? In other words, what kinds of influences shape peoples' beliefs and feelings regarding salmonid population viability and human-salmon interactions?

The selected methods for this research are qualitative, consisting chiefly of interviews and participant observation. Secondary literature was also reviewed.

Twenty-four individuals were formally interviewed. These included catch-and-release fishermen, poachers, family members of poachers, salmon restoration workers, and watershed residents who may or may not fall into the above categories. Interviews were conducted with adults of varying ages and genders, and included one person of indigenous Mattole descent, as well as individuals whose families have lived in the Mattole River watershed for up to five generations, those whose families came as part of the 1970s-era back-to-the-land movement, and those who have arrived even more recently. In the spirit of Ritchie (2003) this research cast a wide net, with as many different members of the Mattole River watershed community interviewed as possible.

Initial interviewees were selected based on personal contacts and knowledge of individuals possessing strong feelings (positive and negative) regarding fishing, poaching, or salmon restoration in the Mattole River. Starting with these initial contacts, snowball sampling (Berg, 2009) was then used to identify further interviewees. Interviewees were generally contacted by telephone and interviewed in the privacy of their homes. Two interviews were conducted in the homes of others or outdoors; in these cases, settings that offered privacy were chosen. In one case, an individual was interviewed at his place of work. An interview schedule containing questions asked of interviewees is attached as Appendix C.

Addressing how to actually conduct interviews, Berg (2004) discusses a continuum of formality regarding interview structure. Falling at one end of the spectrum, unstandardized interviews start with the assumption that the interviewer does not know ahead of time what all the necessary questions are (Berg, 2004). Unstandardized

interview methods further recognize that different interviewees may find different meanings in the same words, thus necessitating adjustments to the wording of certain questions. My interview technique, while not falling at the extreme end of the unstandardized spectrum, utilized these two important ideas. Thus while an interview schedule was created and in some cases was followed question by question, in other cases exploring interviewees' stories required substantial straying from the interview schedule. Additionally, certain words and phrases were adjusted when necessary to clarify intent. For example, one interviewee stated that he did not know what I meant when I asked him for his impression of "the long term viability of salmon and steelhead." I thus rephrased, asking him for his impression of "their ability to persist in the future, and to be here for your kids and grandkids."

Interviews were audio recorded on a portable audio recorder, and written notes were also taken. In one case, an interviewee declined to allow audio recording, so only written notes were recorded; in this one instance, the thorough written notes resemble a complete transcription of spoken responses. In most cases, interviews were fully transcribed; in some cases, partial transcriptions, emphasizing the most significant spoken contributions from interviewees, were completed.

Participant observation involved spending extended time in the Mattole Valley as a resident and working member of the salmon restoration community. As a full-time resident for three and a half years prior to beginning this research, I participated in daily life in the lower Mattole Valley, observing my own and others' activities, socio-cultural dynamics, and dealings with salmon and steelhead. During this time, I was involved with

the ecological restoration work of the Mattole Restoration Council as well as salmonid monitoring and habitat enhancement efforts of the Mattole Salmon Group. My activities with the latter organization included participating in salmonid monitoring efforts and habitat monitoring and enhancement projects. This participation continued during the two-year research process. Extensive observations, notes, and reflections were recorded during the entire five and a half years of participant observation.

Data were analyzed by reviewing written notes, audio recordings, and transcriptions. Any and all interview data concerning direct poaching details were retrieved and coded, resulting in distinct sets of interview data pertaining to various poaching methods or practices. Likewise, all data including peoples' perspectives on each of the main ways humans interact with fish in the Mattole River (e.g., how people felt about catch and release fishing, monitoring and restoration activities, and poaching) were extracted and organized into datasets by type of direct interaction and response (positive, negative, or ambivalent). Data were first analyzed in conjunction with the literature on poaching neutralization techniques (Eliason, 2003) and the spectrum of acceptability and deviance concerning poaching (Hampshire, Bell, Wallace, & Stepukonis, 2004). From here, a more broad analysis of the present findings in terms of socially constructed values, direct sensory perception, collaboration, and conflict resolution was undertaken.

My methodological approach was phenomenological. A phenomenological study describes the meaning for several individuals of their lived experiences of a concept or phenomenon (Creswell, 2007). Throughout my research process, there has been an

underlying focus on individuals' stories of their direct experiences involving salmon, steelhead, and fellow humans interacting with them.

One central aspect of phenomenology of particular relevance and interest is its focus on consciousness as the product of an embodied mind (Merleau-Ponty, 1945/2009). Perceptions arriving initially via our five bodily senses are relatively unmediated by socio-cultural influences; they are, rather, viscerally human. These raw sensory perceptions are often powerful forces, giving substance to the very meaning of what it is to be human in relation to fellow creatures and the natural world, and providing a departure point for various types of phenomenological inquiry (Abram, 1996; Adams, 2010; Neimanis, 2007). These lived experiences offer a counterpoint to perspectives about "others" that are shaped more strongly by socio-cultural influences.

Though at apparent odds with phenomenology's focus on embodied sensory perception, I also approached this research through the epistemological tradition of social constructivism. In the simplest sense, social constructivism accounts for knowledge production by means of social interaction. Individuals develop subjective meanings of their experiences, and these meanings are directed towards specific objects or things (Creswell, 2003). Knowledge claims are then inductively developed from these subjective meanings and experiences. An important tenet of social constructivism holds that these meanings are multiple and varied, and that they are created socially and historically through interactions with others as well as through historical and cultural norms operating in individuals' life experiences (Creswell, 2003).

Social constructivism thus assumes a complexity of views and multiple subjective meanings of knowledge. Indeed this is what makes social constructivism an ideal match to this specific research topic. In the Mattole Valley, residents claim membership in various social communities; while not mutually exclusive, each has its own unique history, cultural norms, and value systems. These various socio-cultural systems influence individuals' thoughts and feelings on local salmon. In addition, interactions among individuals from within one's own social community, as well as interactions between those from different social networks, shape individual perspectives regarding salmon. I am chiefly interested in exploring the complexity of views concerning this topic, and social constructivism, with its assumption that people seek understanding in the world in which they live and work, provides a clear window through which to engage in that exploration.

My research questions lend themselves well to a social constructivist epistemology in that they seek the interrelated perspectives of various individuals, shedding light on both their complexity as well as their sources. It has been said that the goal of social constructivist research is to rely as much as possible on participants' views of the subject being studied (Creswell, 2003). Clearly my research questions – what are local perceptions of salmonid population viability? What are peoples' feelings concerning various human-salmon interactions? – seek to elucidate the participants' views. By also investigating the influences on these perspectives, my questions reflect the social constructivist notion that subjective meanings are negotiated socially, historically, and via an individual's interactions and experiences.

There is undoubtedly a tension between the dual foci of embodied sensory perceptions and socio-culturally constructed meanings. The direct lived experiences are, one could say, more raw and unmediated than the socially constructed meanings which are applied to them, undoubtedly often instantaneously. I have chosen to explore both in order to arrive at an integrated awareness of the varied experiences and constructed meanings of a common coexistence with threatened Mattole River salmon, as well as an assessment of how the people living it might proceed most beneficially.

Methodological Interlude

December 24th, 2011.

The canoe wants to swirl as we float into the pool, but we keep her ruddered straight ahead, cutting over the deepest water. We squint down into the depths but see only clear blue, and the sand meeting the rock ledge at the bottom of the pool. There are many winter days when one gets let down on a spawner survey, but today is not one of those. Fish often flee to the downstream end of a pool when the canoe begins to float over it. Presently they appear below us, darting back upstream as we slowly glide past: “One! Two! Three-Four-Five-Six-Seven! Eight!”

“What did they look like to you?”

“Either steelhead or coho.”

“It’s a pretty small pool.”

“Yep, we have to dive it. Eddy out on left?”

We quickly drag the boat partway up on the sand bar, grab our masks and snorkels and pull on thick neoprene gloves. Nathan, my survey partner, heads upstream to cross above the riffle and I walk around the downstream end of the pool and get in. The chilly water slides over the parts of my face not covered by the mask or hood. As soon as my eyes submerge below the surface, they are scanning side to side, deep down and way out: scanning for fish. Seeing none, I slowly make my way over to the rock ledge, gripping onto its jagged handholds to keep myself steady in the current. Legs and lower body drifting slack behind me, I begin to pull myself upstream. The water surges past, tries to push me downstream, but there are good crevices to grip and I move steadily upstream along the rock wall like some kind of aquatic macroinvertebrate. Nathan comes quickly drifting down the thalweg and I hold myself still and alert for spooked fish. None appear. I go back to creeping upstream along the wall. Towards the upper end, it becomes shallower – about seven feet – and a narrow ledge fractures the wall horizontally, creating a slight undercut. I begin to marvel at the lack of observed fish, when suddenly directly three feet below a large, sharp tail catches my eye. I secure my grip on the rock and otherwise try not to move a muscle. There is something odd about this tail.

It is noticeably forked and doesn’t appear to have any black spots. They could be there; the lower lobe is harder to see from above. But as the fish sidles up closer against the rock, its tail moves ever so slightly, and the current sweeps across it, momentarily

laying it sideways. No spots but streaks! It has flaring dark silver streaks radiating out from the base. This looks like the tail of a coho.

A quick scan of the rest of the fish reveals a prominent white nostril and his nose looking terribly swollen, and I see now that the fish is peering up at me. The combined effect of his upturned eyes and swollen kype makes his face overall look scared. He's wedged himself halfway under the much-too-narrow ledge but he knows I see him. I concentrate on not moving. On the top of his back near the base of the dorsal fin there is a small, black squiggle, an oblong patch. Scanning the rest of his back I see only a handful of other small spots and these, too, are not round like those of a steelhead. This fish happens to have a massive white anal fin, fanning out in the current every few seconds.

This is a rare treasure of a creature to cross paths with. When I am certain, I lift my face up out of the water and say, "Nathan, there is a beautiful male coho trying to hide right here." I point with one gloved finger straight down. He comes over and we stare at the fish together for a few short moments. Seconds seem to stretch longer. The quality of the light underwater gives the fish the color of blue clay.

We are cold, so we swim quietly out of the pool and record the data. We celebrate for having seen an adult coho on Christmas Eve; I do a little dance in my drysuit on the sandbar.

LITERATURE REVIEW

This literature review covers topics germane to the study of conservation and poaching of threatened wild Pacific salmon in a rural coastal watershed of Northern California. It begins with a brief review of the major causes of wild salmon decline, before segueing into an in-depth evaluation of the poaching literature. A review of wildlife law enforcement literature follows, including coverage of its attendant problems and proposed solutions. Literature on collaborative conservation strategies for threatened and endangered species – focusing on salmon where possible – is then discussed, followed by a review of some historical, cultural and community dynamics specific to the Mattole Valley. Though addressed throughout, the review concludes with a summary of gaps in the literature.

Many authors have acknowledged that the few remaining wild Pacific salmon populations in California are declining (Augerot, 2005; Brown, Moyle, & Yoshiyama, 1994; Katz, Moyle, Quiñones, Israel, & Purdy, 2012). The major reasons for the declines in salmon abundance have been well discussed (McEvoy, 1990; Frissell, 1993; Yoshiyama, Fisher, & Moyle, 1998; Montgomery, 2003.) Salmon scientists and historians have concisely captured the major factors affecting the decline of wild salmon by referring to ‘the four Hs:’ harvest, habitat, hydropower, and hatcheries.

Many authors who contributed to the book *Salmon 2100* mentioned the need for changes in harvest management (Lackey, Lach, & Duncan, 2006). Some made no bones about ‘the Harvest Problem,’ and stated that mixed-stock commercial ocean harvests,

currently at all-time high levels, are the most obvious source of the decline of wild salmon and require dramatic changes in harvest management (Buchal, 2006; Dose, 2006). Others plainly called for an end to mixed-stock interception fisheries across all categories of wild salmon stocks, regardless of their prioritization for conservation (Ashley, 2006). Dose (2006) called for the end of all nonselective, mixed stock harvests such as ocean troll and net fisheries, advocating a cautious return to selective terminal fisheries on a few well-studied, abundant stocks. In order to avoid substantial take of non-target stocks, Dose (2006) even suggested “a return to some outdated, but potentially more selective, harvest methods such as fish wheels” (p. 250).

A main thrust of Lichatowich’s (1999) book *Salmon Without Rivers* is that salmon will not thrive without functioning freshwater habitat. The loss and degradation of habitat essential to salmon’s survival in freshwater ecosystems have been thoroughly documented. Multiple land use activities have resulted in habitat impairments: the diking and draining of marshlands (Beechie, Collins, & Pess, 2001; Collins & Montgomery, 2001), timber harvest and road construction (House, 1999), conversions from forest to agriculture, and urbanization (Lichatowich, 1999; Montgomery, 2003). Other authors added to the previous list the impacts of mining (Levin & Schiewe, 2001), and even more recent accounts (Hartman, Northcote, & Cederholm, 2006; Augerot, 2005) named human population numbers – along with oil, gas, and mineral development – as a major factor affecting the future of wild salmon habitat.

In looking over the long history of hatcheries in the Pacific Northwest and their relationship to wild salmon, Montgomery (2003) reflected that “wild stocks fell fastest in

streams that received the most attention from hatchery managers” (p. 167). Reasons are many. Releases of hatchery fish overwhelm smaller native juveniles in competitive foraging environments; hatchery fish eat wild salmon eggs and wild salmon, and interbreeding compromises genetic integrity, ultimately reducing the viability of wild populations (Montgomery, 2003; Augerot, 2005; Waples, 1999; Levin & Schiewe, 2001). Hatchery management has been named among the most controversial topics within fisheries (Augerot, 2005). Some (i.e. Brannon, 2006) exhibited optimism that revamped hatchery management could solve declines in native populations. Others remained concerned that genetic transformations arising within even carefully managed hatcheries can eventually lead to natural populations “that are no longer capable of sustaining themselves” (Lynch & O’Hely, 2001, p. 363). Still others (Lichatowich, 1999; Montgomery, 2003) pointed to history as an indication that technological fixes fell far short of substituting for functioning natural habitats. Bella (2006) concisely captured a central aspect of this problem: “When hatcheries and other technological fixes provide a rationale for reducing protections of natural ecosystems, landscapes, and habitats, they become bulldozers clearing away obstructions to a technologically overwhelmed world” (p. 129). While impacts from hatcheries interact dynamically with multiple other causes of decline, Katz et al. (2012) reflected that hatchery propagation and climate change “appear to be the two most pressing extinction threats to California’s salmonids” (p. 8)

The impact of hatcheries on wild salmon cannot be assessed separately from hydropower. Originally conceived as a politically favorable way to compensate for losses due to over-harvest, hatcheries were likewise hailed as the savior when large hydropower

dam construction projects arose in the Pacific Northwest (Lichatowich, 1999). “Dams have been disastrous for salmon” (Augerot, 2005, p. 108). Along with restricting fish passage to spawning habitat and directly killing fish in turbines, dams profoundly alter natural variation in hydrologic cycles, and reservoirs lack the physical characteristics of free-flowing rivers to which salmon are adapted (Waples, Beechie, & Pess, 2009; Montgomery, 2003; Holling & Meffe, 1996). In flow-regulated reaches downstream of dams, spawning and rearing habitat is reduced by a coarsening of the stream channel and simplification of instream habitat; a lack of access to the floodplain during high flows is an attendant problem (Kondolf, 1997; Ligon, Dietrich, & Trush, 1995). Levin and Schiewe (2001) explained how, beyond reducing numbers of fish, dams also result in loss of genetic biodiversity in surviving Pacific salmon populations.

Wild Pacific salmon restoration is a significant endeavor, and authors have increasingly recognized the need to address its social, economic, political, and cultural aspects (Lackey, Lach, & Duncan, 2006a). One of these concerns, particularly for small, localized runs of threatened or endangered populations, is poaching. With the exception of large-scale, illegal commercial ocean fishing, salmon poaching has not been well addressed in the literature. Poaching was often addressed in the context of illegal international trade of commercially valuable endangered species. Indeed recent activity of this sort concerning salmon being poached from spawning grounds in Kamchatka has been reported (Dronova & Spiridonov, 2009). However, small-scale, non-commercial poaching of Endangered Species Act (ESA)-listed salmon populations by local people has captured very little attention in the literature.

McSkimming and Berg (2008) provided a valuable study on the motivations of steelhead anglers who participated in Pennsylvania's TIP (Turn in a Poacher) Program. The number one motivation they reported was "preventing loss to resource," reflecting a chief concern with the local "Steelhead Industry" (McSkimming & Berg, 2008, p. 237). One of their participants, representative of many, explained: "Steelhead fishing is much more than fishing, it is a money making industry that a lot of folks have a stake in" (McSkimming & Berg, 2008, p.237). Indeed, the number two motivation in this study, (conducted in an area where steelhead are non-native, hatchery-raised, and stocked by the state) was "preventing the loss of local economic benefits" (McSkimming & Berg, 2008, p. 237). McSkimming and Berg (2008) concluded that "The TIP card users, who share similar characteristics with participants in other community crime prevention programs, have a stake in the future and growth of this industry" (p. 239).

This raises the question: would community members, lacking such an economic motivation but enjoying native steelhead and salmon runs that contribute to local identity, culture, and biodiversity, feel similarly compelled to participate in anti-poaching efforts? Such a gap in the literature can be better understood after a thorough review of the existing literature on poaching, after which some of the broader challenges to implementing collaborative conservation of endangered species such as salmon will be reviewed.

Most simply, poaching has been defined as the illegal taking of wildlife resources (Eliason, 2003). It has also been defined as "any act that intentionally contravenes the laws and regulations established to protect wild, renewable resources, such as plants,

mammals, birds, insects, reptiles, amphibians, fish, and shellfish” (Muth & Bowe, 1998, p. 11). Thus it is important to note that this definition would include not only illegal harvesting, but illegal sale, transport, possession, purchase or use of wild resources or their parts that are prohibited by law. Further, conscious intent is a central aspect in this definition (Muth & Bowe, 1998). More recent research reflects the existence of more complex and nuanced understandings of poaching present within communities where it occurs (Senko, Schneller, Solis, Ollervides, & Nichols, 2011; Hampshire et al., 2004).

The circumstances in which an individual first engages in poaching – or when he or she learns their hunting and fishing code of ethics – merits mention. Curcione (1992) reported that among party-boat poachers in southern California, it was most often a male family member (frequently their father) who introduced an individual poacher to certain fishing practices. Being socialized into a value system that supports poaching, “they do not see themselves as having to make excuses for what they define as acceptable behavior” (Curcione, 1992, p. 45). Eliason (1999) also discussed this socialization process, confirming that being introduced to poaching at a young age by a close family member is common.

Poaching tends to be associated with the medieval character Robin Hood, who famously poached deer from the king’s forest and was generally regarded as a hero for exercising what was commonly perceived as a basic right (Cawthorne, 2010). Notions of the poacher as a modern-day Robin Hood are not uncommon (Frandy, 2009; Eliason, 1999; Musgrave, Parker, & Wolok, 1993). Reisner (1991) provided an excellent, historically grounded treatment of poaching in the United States. Complete with an

insightful analysis of American settlers' opposition to restrictions on wildlife harvest, fed by the British commoners' experience, he reflected, "the pioneer mentality dies hard" (Reisner, 1991, p. 272).

Poaching has been referred to as a folk crime: a criminal act that fails to constitute serious violations of public sentiment – either within the subculture in which they occur or within society at large (Muth & Bowe, 1998). Folk crimes are often accommodated by both enforcement agencies and the general public. While they may not be approved, these violations carry little moral restraint, are treated leniently in the legal process, and go unstigmatized – at times being accepted as normal behaviour (Forsyth, 2008).

Researchers concerned with the impacts of poaching on wildlife populations, as well as those noting low levels of tolerance among citizens, questioned the extent to which poaching should still be considered a folk crime (McSkimming & Berg, 2008; Muth & Bowe, 1999).

However, some interviews with game wardens revealed compassionate accommodation for poachers who "do it for survival" or for whom "it is part of [their] life and culture" (Forsyth, Gramling, & Wooddell, 1998, p. 32-33). Such accounts reflected necessary shades of grey in the world of poaching.

Public solidarity with subsistence poachers is likely to arise in cases where wildlife laws are widely recognized to be unjust, for example on the Klamath River during the Salmon War in 1978 and in southern Puget Sound from the 1940s through the 1970s (Most, 2006; Wilkinson, 2000). It is crucial to recognize that indigenous peoples have been targeted with disproportionately strict wildlife law enforcement, and that

wildlife laws put in place by the U.S. or state governments – sometimes contrary to treaty terms – often attempt to constrain or prohibit active relationships between people and animals that have been ongoing for thousands of years, and which constitute the very identity of the people (Wilkinson, 2000; Landeen & Pinkham, 1999). While poaching by indigenous people is not the focus of this research, it is important to understand the ugly fact that, particularly in the Pacific Northwest and Northern California, poaching has been a loaded term in this way.

Over the years, a number of scholars have classified motivations for poaching (Stoll, 1975; Glover & Baskett, 1984; Musgrave et al., 1993; Muth & Bowe, 1998; Forsyth et al., 1998). Poachers have been classified as to whether their acts were intentional versus unintentional (Stoll, 1975), and commercially or recreationally motivated (Glover & Baskett, 1984). Forsyth et al. (1998) identified four categories based on interviews with poachers in a remote basin of Louisiana: poaching for food, money, tradition, and exhilaration. Musgrave et al. (1993) first distinguished commercial poachers motivated by economic profit from noncommercial poachers. Among the latter, motivations run the gamut from the “trophy hunter’s” desire to take a prize animal, to the “opportunistic poacher” motivated by a belief that he will not be caught, to the “slob hunter” who “hunts out of sheer greed, indifference to hunting laws and conservation, or ignorance of any laws protecting wildlife” (Musgrave et al., 1993, p. 983).

Muth and Bowe (1998), based on content analysis, organized motivations for poaching into the following ten categories: 1) commercial gain, 2) household consumption, 3) recreational satisfactions, 4) trophy poaching, 5) thrill killing, 6)

protection of self and property, 7) poaching as rebellion, 8) poaching as a traditional right of use, 9) disagreement with specific regulations, and 10) gamesmanship.

Poaching for household consumption has been explained as an inexpensive way to procure meat (Muth & Bowe, 1998). Musgrave et al. (1993) reported that subsistence poaching is particularly likely to occur in rural areas of the United States with poor economies. However, poaching to supplement family food has been shown to occur across income levels (Muth & Bowe, 1998), suggesting that other motivations may be at work. Forsyth et al. (1998) noted that individuals often expressed multiple motives indicative of more than one category.

Despite this recognition of multiple motivations, an emphasis on enforcement as the chief solution persists. Bulte and Van Kooten (2001) stated that “enforcement increases the costs of poaching and makes it less attractive, thus contributing to conservation” (p. 1800). This implicitly assumes that poachers act logically, weighing costs versus benefits. It also problematically disregards the existence of motivations such as defiance of state control (Musgrave et al., 1993).

In contrast to this myopic view, Eliason (1999) has taken an interesting look at motivations for poaching in the United States from a theoretical angle, examining the role of a political economy of industrial capitalism. He proposed that a fundamental source of motivation to poach wildlife is the structure of contemporary industrialized society and its resultant culture of competition.

Research on motivations for poaching illuminates why people poach; studies investigating their justifications for poaching speak to the ways in which they excuse or

explain their behaviour. Eliason (2003) contributed to the poaching literature by applying neutralization theory to view justifications for poaching. Under this theory, individuals who are in fact committed to the rules of society make exceptions to those rules with rationalizations called neutralization techniques; these serve in their minds to excuse themselves and to prevent individuals from having a guilty conscience (Eliason, 2003).

Ten neutralization techniques were discussed by Eliason (2003). The Denial of Responsibility occurs when one claims that the poaching act was an accident or a mistake. The Denial of Injury is evident in the assertion that no one was hurt because of the activity. The Denial of the Victim claims that the victim had it coming. The Condemnation of the Condemners is exemplified by the statements such as, “law enforcement officers are hypocrites” (Eliason, 2003, p. 227). The Appeal to Higher Loyalties can be seen when the demands of more intimate groups (such as family) take precedence over those of society. The Defense of Necessity is self-explanatory: a classic example would be poaching justified by the need to avoid starvation. The Metaphor of the Ledger is such that “the individual feels that all of his or her good qualities make up for the instance(s) in which they violated the law” (Eliason, 2003, p. 227). The Denial of the Necessity of the Law occurs when individuals feel that the law is unjust or unfair. There is the self-explanatory Claim that Everybody Else is Doing It – with the logical conclusion that the claimant ought to be able to, as well. Last, The Claim of Entitlement is active when individuals believe they are acting on a basic right. To illustrate the Claim of Entitlement, Eliason (2003) quoted one poacher: “God’s little fish are for everybody

even if they can't afford a fishing license. Some people are poor – does that mean they can't eat God's fish?" (p. 236).

Not surprisingly, the various justifications for poaching resonate to greater or lesser degrees depending on local circumstances. Hampshire et al. (2004) provided a particularly insightful analysis of acceptance of fish poaching in the Nemunas Delta region of Lithuania. They posited that poaching in this area occurs on a multidimensional spectrum of acceptability based on its perceived threat to fish stocks and on a sense of aesthetics, fairness, and identity.

Poaching has multiple manifestations, and poachers may occupy different positions along a spectrum of acceptability and deviance (Muth & Bowe, 1998; Hampshire et al., 2004). In the Nemunas Delta, the extent to which poachers are insiders versus outsiders in the local culture, their perceived need or greed, the apparent threat posed to fish stocks, and the aesthetics and fairness of their fishing methods all determined where they fell on the spectrum (Hampshire et al., 2004). Hampshire et al. (2004) held focus groups and conducted semistructured interviews with a full range of local stakeholders and interest groups with regard to fishing; additionally, their use of participant observation further ensured that their findings reflected perceptions of the entire communities where their research took place.

Excepting those studies drawing upon interviews with wildlife enforcement officers and poachers themselves – which have been undertaken predominantly in the southeastern United States (Kentucky and Louisiana) – there is a dearth of empirical research concerning community-wide perceptions and acceptance of poachers. The

primary concerns discussed above – whether poachers are insiders or outsiders, their perceived need or greed, level of threat posed to wildlife populations, and aesthetics and fairness of fishing practices – did appear in the work of Forsyth et al. (1998), which was based on interviews with poachers and wardens in Louisiana.

Locals perceive various methods of fishing and various fishermen differently, and attitudes towards poachers are deeply ambiguous (Hampshire et al., 2004). Whether or not a poacher is a local resident or an outsider is significant. “Real poachers” are the outsiders, particularly those who use nets, break the rules, and worst, those who steal from others’ nets or electrofish (Hampshire et al., 2004, p. 311). Clearly, the multidimensionality of acceptance is such that outsider status is often tangled up with fishing methods. Further, there are varying degrees of insider/outsider status, depending not just on geography but on one’s history and level of attachment to the locale and its values (Hampshire et al., 2004).

Perceptions of need versus greed also significantly affect where a given poacher, on any given day, falls on the spectrum of local acceptance. Those who poach fish for subsistence needs are tolerated if not respected, given the “perceived injustice in fishing regulations, in which the odds are apparently stacked against local subsistence fishermen” (Hampshire et al., 2004, p. 312). Contrast this with the electrofisher (worst) or the net user, who are viewed as greedy (because their catches will generally be sold), compared to the subsistence fisherman who harvests for his own family’s direct consumption. However, again the multiple dimensions of acceptance become entangled: the contempt

in which the electrofisher is held is not purely due to his greed, but also tied up with his fishing practice bringing severe harm to the fish stocks.

Research by Hampshire et al. (2004) as well as Forsyth et al. (1998) revealed the presence of scorn for poachers whose fishing methods are perceived to harm fish populations. Electrofishing is an example: it indiscriminately kills most fish in a given area and causes reproductive harm to those that do not die. In contrast, other poachers (i.e. those taking fish outside of prescribed areas or seasons) who use respected methods of angling seen to cause little or no harm to fish stocks are viewed with less disdain (Hampshire et al., 2004).

Aesthetics and fairness also shape the level of acceptance towards various poachers. In the Nemunas Delta region, certain poachers whose actions harm fish populations are not only despised for this reason, but also because these individuals lack the developed skill, knowledge, and artistry which local fishermen pride themselves on. Electroshocking contravenes against a dearly held sense of aesthetics and fairness. “The villagers revere and relish fishing, because it consists of pitching wit, skill, and luck against nature, but with electrofishing the odds are too clumsily stacked against the fish to gain enjoyment of the chase” (Hampshire et al., 2004, p. 311). Those poachers described as ‘slob hunters’ by Musgrave et al. (1993) similarly garnered disapproval due to their methods.

The work of Hampshire et al. (2004) revealed complex and nuanced relationships to fishing and poaching among members of communities where these activities are

common. There is a tension in these communities between peoples' livelihoods as fishermen and the need to conserve fish:

“This tension exists within a complex framework of ideas about sense of place and local identity and aesthetics...Poachers are understood as occupying a graded category that encircles a host of characters acting under different circumstances” (Hampshire et al., 2004, p. 313).

Understanding these local circumstances of poaching is necessary if effective resolutions are to be forged. Such place-based research that speaks to these complex relationships among poachers and their communities does exist (see also Senko et al., 2011), but is all too rare.

The literature on poaching is dominated by discussions of wildlife law enforcement (Wellsmith, 2011; Eliason, 2008; Forsyth, 2008; Musgrave et al., 1993). In California, the state Department of Fish and Game has enforcement authority for state fish and game laws, which are established by the appointed Fish and Game Commission. Thus it is the state Department of Fish and Game that primarily responds to salmon and steelhead poachers in California. Given, however, that salmon and steelhead returning to certain rivers such as the Mattole are part of Endangered Species Act-listed Evolutionarily Significant Units (ESUs), there is an additional layer of federal regulation that applies to their take. The result, in the case of anadromous fish reliant upon both freshwater and marine habitats, is a veritable tangle of federal and state regulation, co-management, law enforcement and crime investigation, primarily involving the United

States Fish and Wildlife Service, the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, and the state Department of Fish and Game⁴.

The federal Lacey Act of 1900 aids in the enforcement of state wildlife conservation laws (United States Fish and Wildlife Service, 2000), and is widely used. The Lacey Act prohibits the importation, exportation, transportation, sale, receipt, acquisition, or purchase of fish, wildlife, or plants that are taken, possessed, transported, or sold in violation of any federal, state, tribal, or foreign law (Musgrave et al., 1993).

Forsyth (2008) investigated the probability of apprehending poachers based on interviews with sixty-two game wardens; Eliason (2008) studied conservation officers' perceptions of elusive poachers. These two studies revealed that poachers who do not get caught are often highly experienced, operate alone, poach on their own property or in remote areas, and do not talk to anyone about it. Successful poachers also constantly mix up their routines to escape detection, so game wardens must constantly change their schedules so as to be unanticipated by poachers (Eliason, 2008; Forsyth, 2008). Forsyth (2008) also discussed the role of the informant in the work of game wardens, stating that "without the informant, game wardens are severely impeded in their work" (p. 50). He quoted one warden who put it succinctly: "A poacher's distrust of others is his best protection from outsiders" (Forsyth, 2008, p. 50).

In conjunction with the literature describing successful poachers, there is a recognized set of problems regarding enforcement of anti-poaching laws. Wellsmith

⁴ Additionally, Indian tribal laws add another layer of complexity to the regulation and co-management picture where they apply.

(2011) discussed problems including under-resourcing and marginalization within regulatory agencies, potential for corruption, lack of seriousness with which some crimes are seen, and the lack of a deterrent effect. Eliason (2003) illuminated low rates of apprehension of poachers, noting that deer poacher detection rates in California have been reported as low as 2.2%. Musgrave et al. (1993) discussed the problem of lack of uniformity of laws to catch poachers between states, describing the problem as “nearly as widespread as the poaching problem itself” (p. 1000). Selected problems of wildlife law enforcement merit attention.

American wildlife law enforcement is seriously understaffed and underfunded (Musgrave et al., 1993; Muth & Bowe, 1998; Tobias, 1998). Meaningful enforcement of wildlife laws is nigh impossible when America’s 17 million hunters outnumber conservation officers by roughly 9,000 to 1 (Musgrave et al., 1993). Wellsmith (2011) discussed manifestations of the under-resourcing of wildlife law enforcement in England and Wales. In addition to simply not enough personnel, Wellsmith (2011) also described a lack of basic material resources such as vehicles, a lack of data collection and sharing tools, a lack of access to forensic analysis and technology such as surveillance equipment, and insufficient training for enforcement agents, prosecutors, and the judiciary (p.135). Similar issues face American wildlife law enforcement agents (Musgrave et al., 1993; Tobias, 1998). Writing for the *Santa Cruz Sentinel* about increased illegal gillnetting of endangered steelhead in Central California Coast rivers and creeks, Alexander (2010) paraphrased a longtime warden’s reflection that only so

much ground gets covered, and that poachers' operating at night in remote locations and on private land complicates enforcement.

Due to the lack of sufficient staff and required resources for wildlife law enforcement, anti-poaching laws are selectively enforced. While developments such as CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora, put into effect in 1975) have brought some increased attention to laws protecting endangered species, selective enforcement remains a problem. This is particularly so for small wildlife populations (i.e. threatened or endangered species) that are not subject to significant international trade.

The primary sources of funding for fish and wildlife agencies are often hunting and fishing license fees (Musgrave et al., 1993). Eliason (2003), repeatedly referring to fishing without a license, stated frankly that these "less serious violations result in less revenue for wildlife agencies to use for the propagation of wildlife" (p. 230). Noting that "enforcement does not "pay" for small stocks," Bulte and Van Kooten (2001) predicted further deterioration in these cases (p. 1802). What they described is something akin to a downward spiral for imperiled species: few poachers are attracted or supported by a small wildlife population, so enforcement does not appear to be worthwhile; such lacking enforcement allows the few poachers to deplete the small stock further; fewer poachers being supported by the depleted stock further reduces incentives to invest in enforcement. While the eventual result seems obvious, Bulte and Van Kooten (2001) stopped short of the logical outcome, relying on their admittedly deterministic and mechanistic model which, depending on the initial population, predicted either "the species' (near) demise"

or “an abundant steady-state population” (p. 1802). Bulte and Van Kooten (2001) hopefully concluded that while “special consideration is necessary to prevent or counter the endogenous fall in both enforcement and population levels,” some high-profile endangered species (read: some lucky charismatic megafauna) may in fact be able to attract international funds to augment enforcement (p. 1803). Such uncritical reasoning calls for more enforcement even after its application has been shown to be disproportionately lax for already-reduced, i.e. threatened and endangered, populations.

Selective enforcement not only affects which species are subject to more aggressive enforcement, but also which types of poachers. At the state level, understaffing often means letting large-scale commercial violations go, in favor of pursuing technical violators – such as those fishing without a license or outside of season or area limits. This emphasis on technical violations breeds hostility among sportsmen, typically wardens’ best allies in catching poachers, leading to decreased cooperation and thus decreased effectiveness of enforcement (Musgrave et al., 1993).

Another factor compromising successful enforcement of anti-poaching laws is the difficulty of apprehending poachers who are active during legal hunting and fishing seasons, when many violations occur (Muth & Bowe, 1998). The difficulty of policing illegal fishing when some legal fishing is permitted is mentioned briefly as an issue contributing to salmon mortality (Lackey, Lach, & Duncan, 2006c).

Underlying the on-the-ground factors thwarting successful enforcement of anti-poaching laws are structural considerations. Wildlife law enforcement occurs in the larger context of the legal system within which it is contained. Poaching is generally perceived

to be less serious than other crimes, particularly those with human victims (Musgrave et al., 1993; Eliason, 2003; Wellsmith, 2011). Further, in the U.S., state judges who are either elected by the public or serve as political appointees are subject to pressures which often affect whether poachers are convicted or penalized. As Musgrave et al. (1993) pointed out, the potentially severe penalties of the Lacey Act (i.e. up to \$250,000 fines and five years' prison time for felonies) require action from prosecutors and judges who are subject to political, community, and cultural pressures, and who often de-emphasize the importance of wildlife laws. While Wellsmith (2011) cited criminological research suggesting that even the most draconian punishments rarely produce a deterrent effect, it is not uncommon to find in the literature the standard call for increased enforcement with stiffer penalties for poachers.

In addition to all of the particular and structural problems associated with enforcement of anti-poaching laws, there is this most fundamental hitch: the lack of a deterrent effect. Wellsmith (2011) noted that, "even when enforcement is trumpeted as successful, there is little evidence that crime is reduced accordingly" (p. 139). She thus asks,

"Why do those mandated to prevent wildlife crimes seem so preoccupied with blaming a lack of success on weak enforcement, rather than recognizing that even with improvements, enforcement activities alone are unlikely to reduce such offenses? Instead, enforcement should be seen as just one response to the problem" (Wellsmith, 2011, p. 140).

Wellsmith also raised the point that when endangered species are concerned, enforcement after the crime (that is, enforcement after an endangered species is taken) is clearly less optimal than preventative measures to circumvent that loss in the first place.

If enforcement is ineffective, solutions or alternatives must be sought. Musgrave et al. (1993) provided one of the more lengthy treatments of solutions to poaching. Flowing from interviews with enforcement officers, they classified solutions into two broad areas: restrictive deterrents and incentive methodologies. Restrictive deterrents include the typical suggestions of increasing penalties (incarceration, fines, revocation of hunting privileges), simplifying laws, and increasing law enforcement funding (to provide additional enforcement officers and to arm them with modern equipment) as well as law enforcement authority. Additionally, they called for law enforcement responsibilities to be prioritized, the commercialization of wildlife to be banned or regulated, a national reporting system and a national permit assistance system to be established, and for reward programs to be increased.

Describing toll-free hotlines where people can anonymously report violations as ‘reward programs’ is, in many cases, a misnomer. Nonetheless, Musgrave et al. (1993) surmised from the high rate of reported interest in conservation among hotline-using sportsmen that hunters police their own ranks. This is a key concept, discussed at some length by Curcione (1992) in reference to poaching fish below legal size limits; self-policing is also mentioned by Stretesky, Shelley, and Crow (2010).

More useful than their call for increased enforcement/deterrent efforts is Musgrave et al.’s (1993) discussion of incentive methodologies: education, basically. Indeed education is commonly presented in the poaching literature as a potential solution (Muth & Bowe, 1998; Eliason, 2003; McSkimming & Berg, 2008). Musgrave et al. (1993), however, advocated not only the usual education of the general public, but

educating judges and prosecutors on the need for supporting wildlife enforcement. This is in the interest of addressing the prevalence of lenient sentencing for wildlife law violators.

The importance of improving relationships between wardens and the public has also been highlighted: “Educating law enforcement agents about the importance of maintaining a good relationship and increasing agents’ involvement with the sporting community can be effective tools in bringing about compliance with wildlife laws” (Musgrave et al., 1993, p. 1011). These same authors quoted from an interview with a waterfowl hunter who spoke to the importance of personality and attitudes of local game wardens: “Given respect for the individual, they (hunters) choose not to violate. Without respect, violating becomes a way to test and defy the authority” (Musgrave et al., 1993, p. 1011). They quoted one affiliate of the United Conservation Alliance who says, “The agency, by denying involvement, is throwing away the most effective strategy we have in developing the stewardship and responsibility that it wants to develop in its citizenry” (Musgrave et al., 1993, p. 1011). While refreshing in its emphasis on building relationships, this statement nonetheless reflected the pervasive ideology (even in the conservation community) that it is the role of the wildlife agency, rather than the citizenry, to respond to poaching.

Musgrave et al. (1993) did seem to recognize the effectiveness of public scrutiny, claiming that “an informed public creates peer pressure to compel responsible behavior” (p. 1012). They advocated educating youth as a means to this end, citing one study in which children of known poachers were educated on conservation and protection of

wildlife, and then profoundly altered their parents' attitudes as well. Indeed educating youth is not an uncommon idea as a means to decrease poaching (McSkimming & Berg, 2008; Senko et al., 2011).

Musgrave et al. (1993) also promoted involving the media, suggesting that publicizing the stories of “converted poachers” may hold much promise:

“Publicizing the stories of converted poachers affects those in the community who consider the poacher to be a folk hero. When poachers confess the error of their ways and make public commitments to abide by the law, they make a significant impact on the attitudes and behaviors of other hunters” (Musgrave et al., 1993, p. 1013-14).

The potentially powerful role of the reformed poacher to influence his peers is also discussed by Reisner (1991) and received indirect treatment by Vaillant (2010). While enlisting reformed poachers to speak publicly is one tactic, Musgrave et al. (1993) also reflected on simpler strategies with the potential to impact poachers' actions: “Fines do not have much impact on violators, but the possibility that their names might appear in the paper does” (p. 1014). Paraphrasing renowned game warden Dave Hall, it is peer pressure – once hunters are convinced that wildlife is worth protecting and that laws are necessary – that will discourage poaching (Musgrave et al., 1998).

“Societies can be law abiding where citizens themselves take responsibility for each other and become directly involved in demanding legal and ethical behavior of other members” (Musgrave et al., 1993, p. 1014). Wellsmith (2011) agreed, noting:

“people are more deterred by the sanctions of a personally relevant collective” than those of a criminal justice system (p. 140).

Wellsmith (2011) thus advocated alternatives to the enforcement paradigm. Allison (2001) reached a similar conclusion after taking a broader view, looking at the fisheries crisis from the perspective of global ocean governance. Allison (2001) stated quite simply: the “legal framework has failed to prevent the current crisis of ‘small catches,’” suggesting that the role of civil society seems likely to become more important than currently insufficient ‘big’ laws (p. 15).

We are in a new era of conservation: strategies are shifting away from ‘command and control’ and towards greater collaboration (Wondollek & Yaffee, 2000; Brick, Snow, & Van de Wetering, 2001; Weber, 2003; Sabatier et al., 2005). It has been argued that command-and-control management often results in the unforeseen collapse of natural resources, social and economic discord, and losses of biodiversity (Holling & Meffe, 1996). Berkes (2004) found that “centralized management is a poor fit for complex systems” (p. 625). The rise of wicked environmental problems – evading clear resolutions and characterized by multiple factors, high degrees of scientific uncertainty, and profoundly divergent values – has made it clear that exclusively regulatory approaches based on single media (such as the Clean Water Act other pieces of landmark 1970s environmental legislation) are now insufficient (Caron & Serrell, 2009; Balint, Stewart, Desai, & Walters, 2011; Shutkin, 2001). There has been broad agreement that the problem of wild salmon conservation is indeed a wicked one (Lackey, 2007).

Participatory approaches are on the rise because the nature of complex environmental problems necessitates a different approach – a participatory approach (Berkes, 2004). Community-level cooperation and participation in conservation is key

(Wondollek & Yaffee, 2000; Shutkin, 2001; Lewicki, Gray, & Elliott, 2003). In a study of coastal Oregon residents' views on coho salmon restoration, many respondents believed that "knowledgeable local people were the best sources of information" (Smith, Gilden, Cone, & Steel, 1997, p. 13). Further, Senko et al. (2011) suggested that community participation in local conservation initiatives may offer activities that serve to replace poaching – with the added benefit of promoting positive environmental attitudes towards conservation. Broad participation and interaction is thus essential. "Science and local knowledge can interact to improve the understanding of both parties... (Yet) the relationship between local knowledge and scientific knowledge is not always comfortable" (Berkes, 2004, p. 627).

What makes for this uncomfortable relationship? One component was observed in the context of poaching endangered sea turtles (by locals as well as non-locals): conservation activity becomes difficult when local residents do not perceive a need for it (Senko et al., 2011). Divergent perceptions of problems, combined with different levels of authority among stakeholders, can create tension. Left unchecked, this can lead to a major challenge concerning local involvement in endangered species protection: the problem of trust among various agencies, organizations, communities, and individuals. 'Social trust' – that which occurs between various stakeholders and which generally leads to their cooperation – is distinguished from 'official trust' – stakeholders' willingness to defer to policy officials' judgments (Sabatier et al., 2005). Distrust of either variety (towards fellow citizens or agency representatives) can severely hamper efforts to resolve environmental conflicts (Lewicki et al., 2003). However, Wondollek and Yaffee (2000)

claimed that collaboration in resource management “can help *rebuild* a sense of trust in government institutions and each other” (p. 8; emphasis added). This presents something of a paradox: collaboration is unlikely to succeed without trust, yet trust is built through collaboration. Thus the challenge in making community-based conservation work may be, as Berkes (2004) suggested, “creating a context that encourages learning and stewardship and builds mutual trust” (p. 629.)

In regards to coho salmon restoration in coastal Oregon, it has been noted that (official) distrust hinders effective communication; yet, communication and confidence are essential between regulators and the public (Smith et al., 1997). Not surprisingly, public confidence in salmon enhancement initiatives in coastal Washington and Oregon increased citizens’ willingness to pay for those programs (Bell, Huppert, & Johnson, 2003).

Recent research suggested that local people do support, and desire to be involved in, endangered species protection and restoration (Smith et al., 1997; Senko et al., 2011). The majority of coastal Oregon respondents in one study did want to protect and restore salmon even if doing so is costly (Smith et al., 1997). Similarly, a study concerning poaching of endangered sea turtles in Baja indicated a high level of willingness to participate in conservation activities, and suggested that non-governmental organizations (NGOs) increase efforts to invite such local participation. “Despite respondents’ apparent interest, existing community-focused conservation efforts are in need of improvement to adequately target more of the local community” (Senko et al., 2011, p. 155). Senko et al. (2011) concluded that the most successful conservation outreach programs have focused

on engaging multiple stakeholders, such as school children, artists, fisherfolk, decision makers, and the community as a whole. They recommended that conservation groups try to expand their efforts to include a broader subset of residents in their communication and educational programs geared towards protection of local endangered species (Senko et al., 2011).

However, changing peoples' attitudes and relationships with endangered species requires some *sangfroid* in the form of historically grounded socio-cultural, economic, and political understandings (Lichatowich, 1999; Montgomery, 2003; Lackey, Lach, and Duncan, 2006a; Vaillant, 2010). This cannot be overly emphasized.

“Conservation NGOs continue to face formidable challenges in reconciling differing ecological, economic, cultural, financial, and social objectives...Efforts to change community knowledge, attitudes, and behaviors in regard to resource utilization are (sic) complex, and require a detailed understanding of the cultural, economic, political, and social fabric.” (Senko et al., 2011, p. 155).

A political orientation that is deeply mistrustful of government actions affects efforts to protect and restore threatened and endangered Pacific salmon (Smith et al., 1997). Ingrained into the social fabric of the Pacific Northwest, too, are ideas that salmon decline is predominantly a production problem to be fixed with hatchery introductions (Smith et al., 1997). Further complicating matters is the popular sentiment that non-human predators such as sea lions and cormorants are the real problem (Smith et al., 1997).

While these latter issues transcend local community boundaries, in other cases, localized peer pressure to accept or participate in the poaching of endangered species

represents a major challenge to conservation (Senko et al., 2011). The challenges facing community-based conservation reflect the complexities of socio-ecological systems, and as such must be addressed at various scales (Berkes, 2004). Horizontal linkages across communities facing similar challenges may be beneficial (Berkes, 2004). Communities struggling to address poaching of endangered species may learn valuable lessons from other communities' strategies and experiences.

Yet at the same time, the specific socio-cultural circumstances of any human community (much like the larger unique ecological processes of any place) must be well understood if its conservation challenges are to be resolved. Hence some history of the cultures that have called the Mattole Valley home during recent centuries is required. The current issue of salmon poaching occurs in the context of, and to some extent may be viewed as the outgrowth of, cultural differences. A brief review of the literature on three overlapping cultures existing over time in the Mattole Valley follows. Discussing any of them as though separate from their physical place would be absurd, thus a short description of the Mattole Valley follows first.

The Mattole Valley is a roughly three hundred square mile watershed which empties into the Pacific Ocean just south of Cape Mendocino, the westernmost point of the contiguous forty-eight states. Though expansive grasslands exist, the valley is largely forested with predominantly Douglas-fir, redwood, and tanoak. It is today, and is believed to have been during pre-contact times, inhabited by roughly a scant two thousand total people. It is not accessible by any major highways, and the three largest towns in the valley are the unincorporated communities of Petrolia, Honeydew, and

Whitethorn, each today home to fewer than one thousand residents. The sixty-two mile long Mattole River runs undammed from its headwaters in the far northwestern tip of what is now called Mendocino County to the Pacific Ocean, supporting an array of life as it has done for thousands of years.

Relatively little is known about indigenous life ways in the Mattole Valley prior to white contact. While archaeologists have found evidence of human presence in the Mattole Valley dating to between 2,600 to 1,600 years before the present (Raphael & House, 2007), and linguistic analysts have theorized that speakers of the Mattole language separated from Hupa speakers sometime between 1,000 and 1,300 years ago⁵ (Roscoe, 1985), oral traditions stating that Native people have been in what is now Humboldt County “for longer than the earth can remember” merit equal consideration (Raphael & House, 2007, p. 6). In his *Ethnohistory of the Mattole*, Roscoe (1985) discussed the complex social structure among the three socio-political groups collectively referred to as the Mattole people⁶. Though an account from Joe Duncan, one of the last surviving Mattole individuals to live in the valley, identified Mattole village sites on the coast, and subsequent archaeological evidence points to year-round occupation of at least

⁵ Both the Mattole and Hupa languages belong to the larger Athabascan (or De’ne) language family. Linguistic scholars suggest that the first people in present-day Humboldt County spoke either a Hukan language (e.g. Karuk) or some version of a Yukian language such as those spoken by early people in Mendocino. The Wiyot and Yurok languages, conversely, belong to the Algonquian family and are thought to have split apart roughly 3,000 years ago, followed by subsequent migrations of both groups into northern California, joining the already-present Karuk. It was not until hundreds of years later that Athabascan-speaking peoples (Hupa and Mattole) arrived in this area: sometime between 700 A.D. and 1300 A.D. (Raphael & House, 2007).

⁶ These three groups are the Betol (from which the name Mattole derives), the Bear River, and Cooskie peoples (Roscoe, 1985). It is also important to note that descriptions of the peoples of the Mattole River valley generally focus on those inhabiting the lower half of the valley, while the Sinkyone peoples – who inhabit portions of the upper Mattole River valley and portions of the South Fork Eel River drainage, as well as nearby coastal areas – are often considered separately.

some of these coastal sites (suggesting they were main villages), it is likely that the Mattole people often moved seasonally, settling temporarily in a variety of different places depending on an annual cycle of abundant seasonal food sources (Roscoe, 1985). The onset of winter rains brought one of the main staples to the Mattole. Salmon were harvested from the river in weirs and taken by spear. Salmon were smoked for preservation and, along with acorns, provided the bulk of subsistence during winter in their main villages. These stored staples were augmented by fresh steelhead and game (Roscoe, 1985). Discussing the collection and cultivation of other seasonal food sources, Roscoe (1985) suggested that patterns of burning practiced by the Mattole in order to maintain food-rich ecotones were considerably complex. He pointed out that “the landscape described as wild by the first Whites who came into the Mattole Valley with its thousands of acres of lush grasslands was not wild at all” (Roscoe, 1985, p. 14).

In 1854, a man named George Hill ventured from Humboldt Bay into the lower Mattole Valley and subsequently contributed to a story in the Humboldt Times, conveying the image of a warm, sunny valley “rich with open prairie sufficient for a large settlement of farmers” (Roscoe, 1985, p. 23). Not surprisingly, by the following year, newcomers and their cattle had settled in the adjacent Bear River just to the north. By 1857, roughly fifteen white settlers took land in the Mattole Valley under squatter’s rights, ushering in a bloody era of conflict (Roscoe, 1985). The clashes between native Mattole people and white settlers between 1857 and 1864 were horrific. Roscoe (1985) has provided a thoroughly researched, even-handed, and detailed account of these events. He describes in detail the “vicious, anarchic behavior” of the “buckskin gentry,” the

raping of Mattole women, men being shot while women and children were sometimes taken prisoner, and unnerving details of extremely nightmarish events (Roscoe, 1985, p. 28-41).

Not all the white settlers in the Mattole Valley were similarly disposed to such violence and killing (Roscoe, 1985). Well-intentioned efforts existed, notably one that led a small group of settlers in the Petrolia area to publish what they called “a treaty of peace and friendship with the Indians” in the Humboldt Times in 1858⁷ (Roscoe, 1985, p. 31).

However, the abiding sentiment of the day was one of violence:

“The fraction of Mattole settlers engaged in genocide were shielded and encouraged in this behavior by editorials in the local newspaper. The Humboldt Times openly advocated the extermination or removal of northwestern California Indians to distant reservations” (Roscoe, 1985, p. 39).

An 1862 report by Lieutenant Charles Hubbard, who was sent to the valley in response to settlers’ complaints about Indians, contained interesting reflections on the dominant attitudes of white settlers in the Mattole Valley. He wrote, “Human life is of no value in this valley and law seems only to be respected so far as it is backed by visible force” (War Department, 1897; quoted in Roscoe, 1985, p. 42). Law backed by visible force has rarely been highly evident in the Mattole Valley, and it was not sufficiently evident in the 1860s to prevent the continued massacre and driving out of the indigenous people (Roscoe, 1985).

⁷ This so-called treaty (which was never presented to nor signed by the local indigenous people) was deeply problematic, requiring the local Mattole people to abandon their indigenous ways of life and land management. Ultimately its promises of protection to the Mattoles were not upheld.

Some individuals who fled their valley survived by integrating into various Hupa village groups, and others (mostly Mattole women) lived on associated with white households in the valley. But as Roscoe (1985) wrote, “After one or two generations, descendents of the Mattoles who had been removed to foreign places among foreign peoples, no longer practiced most of the cultural activities which had identified the Mattole way of life” (p. 51).

As the cultural prominence of the Mattole peoples disintegrated, changes arose in the way some whites viewed and treated them:

“With the perceived threat of competition for the land and its resources and Indian counterattacks against White encroachment removed by the annihilation or dispersal of the Mattole Indians, the settlers began viewing the surviving Mattole differently. With the passing of years the remaining Indians were no longer looked upon with the psychotic fear and hatred of the 1850’s and 60’s, but rather came to be regarded with increasing tolerance. As Philip Mason has noted, there is a strong correlation between racial intolerance and insecurity. White settlers certainly felt insecure about Indians when they first came to Humboldt County because the Indians at first outnumbered them...After the Indian population of southern Humboldt had been largely destroyed, the stronger feelings of insecurity died out and with them some degree of the strongest manifestations of hatred of Indians. Although prejudice and discrimination continued on the part of many settlers, the Mattole Indians who remained were no longer shot on sight” (Roscoe, 1985, p. 53-54).

Roscoe (1985) reported that “many of the settlers who had taken a most active part in the massacres and Indian hunts stayed on in the Mattole Valley to become prosperous ranchers” (p. 54). However, he also reported that there were settlers with conscience living in the valley who did not excuse the actions of the southern Humboldt Indian killers. Many of these men had arrived in the valley single and had begun living

with Mattole women (there were far fewer white women than men in the valley at the time). Though some of these men “treated the Indian women living with them brutally,” many did not:

“Many of the White males living with Indian females in the Mattole area, however, regarded the Mattole women in their households as their wives and treated the children resulting from these unions no differently than if they had been White” (Roscoe, 1985, p. 55-56).

Thus the remaining Mattole women in the valley, and their children, were assimilated into the dominant culture. Concluding *An Ethnohistory of the Mattole*, Roscoe (1985) stated:

“The Indians had the land and the settlers took it, wiping out the Mattole culture in the process... Today the Mattole culture can effectively be termed extinct although there are numerous individuals with varying degrees of Mattole blood” (Roscoe, 1985, p. 58-60).

Much has been written on the agricultural and ranching culture that came to predominate in the Mattole Valley upon the demise of the indigenous Mattole culture⁸ (Roscoe, 1940; Mattole Valley Historical Society, n.d.). The Mattole School District was established in 1859 (Cooskey, 2004), followed by formation of the Mattole Grange in 1874, during what the popular press of the time called “the era of Granger religion” (Humboldt Times, 1875; quoted in Raphael & House, 2007, p. 261). The Mattole Valley Historical Society, with its office in the Mattole Grange Hall, contains a wealth of information on early white settlement, agriculture, timber harvest, and ranching in the

⁸ Laura Cooskey, the force behind the Mattole Valley Historical Society, aptly states: “It would be extremely small-minded to interpret this statement [the erasure of native peoples having been both governmental policy and public goal] as an attack on the morality of anyone or any group here today, based on the actions of their ancestors. They were everyone's ancestors, the forebears of everyone partaking of today's civilization; and while personal responsibility is always the final factor in moral decisions, the strength of cultural directive cannot be overestimated” (Cooskey, 2004).

Mattole Valley. While cattle ranching and dairy operations were some of the first industries in the valley, a relatively short-lived oil boom in the lower Mattole Valley (giving rise to the town name Petrolia) in 1865 made for a rapidly increased population (Raphael & House, 2007; Cooskey, 2004). Despite ultimate disappointment in the oil industry, many agriculturally minded settlers were taken with the Mattole Valley's climate, soil, and pasture; cattle and sheep ranching continue today. The relative remoteness of the Mattole Valley from other southern Humboldt towns not only attracted a unique type of hardy homesteader, but contributed to the formation of a vigorous local community among many.

A wave of what have been called "new settlers" occurred in the Mattole Valley beginning in the 1970s (Freedlund, 2005, p. 33). Spurred by ideas of moving 'back to the land' and bioregionalist thoughts on reinhabitation, some of these newcomers seemed to be of a decidedly different culture than many members of existing communities of the Mattole Valley. Their integration was not always without cultural clashes. These newcomers focused on efforts to restore the watershed and its salmon from the effects of a rapacious logging era (largely due to an ill-conceived state tax punishing landowners for standing timber) inauspiciously timed in conjunction with two one hundred-year floods. Brandishing ideas of ecological holism, health and recovery (though in one sense, not so different from the guiding stewardship principles of a sustained ranching lifestyle) was suspicious activity (House, 1999).

In 1978, two public meetings to discuss the decline of the Mattole salmon brought some of the diverse attendees' various perspectives into vivid focus. The latter of these

meetings was held at the Mattole Grange Hall, and had been called by a descendent of one of the first white settlers in the lower Mattole Valley, an elder rancher. He had asked a local biologist from the Department of Fish and Game (DFG) to run the meeting. When the tense biologist suggested that certain salmon predators (such as sea lions, river otters, mergansers, or great blue herons) could no longer simply be shot by the locals with DFG's blessing, the respected elder remarked publicly, "Shoot. Next thing you know, they'll be telling us we shouldn't have run the Indians outta here." (House, 1999, p. 124).

The words of one individual rancher certainly cannot and do not represent all. Nonetheless, those publicly spoken words do demonstrate that even more than one hundred years after the Mattole Indians had been "run out," a proprietary sense of God-given ownership of the valley – ownership of its fields and fish and all its natural resources, having been assured by nothing less than the violent forces of Manifest Destiny – continued among some. It was into this cultural milieu that the new settlers arrived.

In 1980, the Mattole Watershed Salmon Support Group, now known as the Mattole Salmon Group, was formed. The nonprofit organization's founders were newly arrived local residents who were terrified by the decline of native salmon and steelhead populations. They set out to learn all they could about the factors limiting the survival of the fish, and to intervene where possible.

They learned that the watershed had been ravaged by recent land management. In combination with naturally erosive soils, slippery geology including modest proportions of what was called "blue goo" clay, and its location straddling one of the most active

fault zones and fastest-growing mountain ranges on the planet, widespread tractor logging had left a legacy of geomorphic effects that flowed down into the river system. In some cases, whole hillsides collapsed into the river channel. In 1955 and 1964, two one-hundred-year flood events lashed the watershed. The river and tributaries were left clogged with fine sediment, while natural complexities in the stream channel, the result of millennia-old processes, were swept out to sea or simply buried in the mix of silt, sand and gravel. This was no place for salmon eggs and juveniles, which require cool, clear water in which to grow.

One of the early hands-on activities of the Mattole Salmon Group involved the use of streamside incubators, called hatchboxes. The hatchboxes provided a hospitable substitution for the degraded spawning and rearing conditions in the watershed. A handful of them were built from scavenged and donated materials and thanks to the carpentry skills of certain Mattole Valley residents. Their use required eggs, and thus the capture of unspawned adult salmon from which to retrieve them. A well respected local architect and builder designed and built an elaborate weir and trap which was placed in the river for capturing the fish.

The early years of the Mattole Salmon Group were marked by a high degree of local involvement and volunteerism. Youth were often easily recruited to assist with the release of fish that had been reared in the hatchboxes, and in 1986, the first classroom incubators were introduced to captivated young students, who learned about the salmonid life cycle while carefully tending the growing fish and then releasing them into streams

(Freedlund, 2005). Adults, too, were drawn to the opportunities to participate in the hands-on work with the salmon.

In 2005, the Mattole Salmon Group's permits to continue activities involving the capture and rearing of native salmonids were not renewed by the Department of Fish and Game. From this time on, the activities of the organization have been officially restricted to monitoring the fish and their habitat, implementing instream habitat restoration, and doing outreach and education on behalf of the salmon and steelhead. Concurrent to this shift and the decline in citizen participation in hands-on salmon activities has been a rise in federal and state grant funding for restoration, allowing for habitat restoration projects whose implementation costs and beauracritic requirements dwarf those of the early years. Yet the Mattole Salmon Group exists, in this respect, in the shadow of a larger nonprofit organization.

The Mattole Restoration Council (MRC) was formed in 1983. Its founders recognized that in order to save the salmon and foster a sustainable future for all Mattole Valley inhabitants, the restoration of the entire watershed ecosystem was necessary. Thus while the Mattole Salmon Group's focus is directly on the fish and their riverine habitat, the MRC's scope of work has always been more broad. MRC projects include the well-known Good Roads, Clear Creeks sediment reduction program, which has decommissioned unused and erosive roads and upgraded thousands of road and culvert sites across the watershed. The MRC has spearheaded numerous forestry projects, and also carries out riparian ecosystem restoration, native grassland restoration, invasive plant removal, GIS mapping, ecological education, and watershed monitoring.

Since 2003, the Mattole Restoration Council and the Mattole Salmon Group have been, along with the land trust Sanctuary Forest, partner organizations in the Mattole River and Range Partnership. A memorandum of understanding between the three groups clarifies their respective domains, which are not always simple to distinguish. For example, when does a sediment reduction or streambank stabilization project (the domain of the MRC) morph into an instream restoration project (the purview of the MSG)? Further complicating a clear understanding of who is who among the local nonprofit groups is the fact that, for many years (1986-1999) the Mattole Salmon Group was one of many member groups of the Mattole Restoration Council.

Despite some ongoing local confusion as regards the distinct organizational identities of the Mattole Salmon Group and the Mattole Restoration Council, the Mattole restoration movement as a whole has articulated a compelling place-based ecological philosophy and accomplished its attendant work on the ground in such a manner so as to become highly regarded in the realm of community-based environmental lore (Bernard & Young, 1997; Bernard, 2010).

Since the 1970s, members of both the ranching and ecological restoration communities have made significant headway in getting to know one another. The Mattole Watershed Alliance of the early 1990s meaningfully brought together members from both communities to discuss issues of common concern. Much had been done to find common ground: there was broad involvement in salmon rearing activities, dramatic theatre plumbing the depths of social friction, and simple drinking in the bar together. “But the cohesion soon unglued as organized restoration pursued ecological goals and principles

without full communication to residents who were standing by and watching” (Freedlund, 2005, p. 50-51). In the late 1990s and early 2000s, Mattole restoration groups experienced a significant influx of state and federal grant funding that enabled an exponential increase in watershed restoration work. In 2005, Freedlund wrote,

“Currently, direct landowner incentives to restoration such as state-funded road upgrades, sediment treatments, fuel-load reduction, and fire safety projects are fostering an atmosphere of increasing social cooperation. Changing perceptions and preconceived notions about the land and the people who live here have been critical. It remains a major ongoing challenge for restorationists” (p. 52).

Since 2005, the grant funding that fueled those direct landowner incentives has been drying up (and the lone bar in the lower Mattole Valley has closed⁹). These are but small pieces of a much larger economic picture that contributes to the strain within contemporary Mattole watershed society. For a larger understanding, we must zoom out slightly, looking at other financial realities of the last decade.

A bottomed-out timber market threatens the financial solvency of many Mattole Valley ranchers (particularly larger landowners) whose livelihoods have depended on a combination of livestock production and occasional timber harvest. Many Mattole Valley residents, including both back-to-the-landers and ranchers (the lines between which have become blurred), have diversified their incomes with marijuana cultivation. But stoking this now-saturated economic market also has its perils. Though the risks of getting busted were significant in the 1980s, more recently the Mattole Valley is known as a place where law enforcement is virtually absent and the growing climate is favorable. Among

⁹ As of this publication, the bar has changed ownership and is preparing for re-opening sometime in 2012.

other things, this has caused land prices to become elevated, making it hard for homegrown kids to stick around – unless they set up a sizable grow scene. While traditional ranchers and environmentalists alike lament the proliferation of large greenhouses that now dot the landscape, embodying not only the loss of a rural lifestyle but the environmental impacts of this type of land and water use, the myriad tensions surrounding this issue run high. It will not be easily resolved. It is among the primary means of income generation in the watershed, and it is an undeniable part of the broader social, economic, and environmental picture of the place. Grasping this larger context is essential to a nuanced understanding of the various people, salmon, and their interrelationships in the Mattole Valley.

Zooming back in to the particulars of this research, the Mattole Salmon Group recently issued a number of alarms about the state of Mattole River salmon. In the summer of 2010, the Mattole Salmon Group hosted two community meetings, titled “Let’s Talk Coho,” in Petrolia and Whitethorn. Outreach for the events described the need for a community discussion about the threat of species extinction in the Mattole. At the two events, then-executive director of the Mattole Salmon Group Keytra Meyer presented evidence on which the organization’s concern for extinction of Mattole River coho salmon was based. Observed numbers of adult coho salmon for the past twenty-five years were presented, along with observations of similarly dwindling numbers of juvenile coho. Attendees were asked to spread the word about the possibility of extinction, to cease and discourage poaching of coho salmon, and to conserve water necessary for the

summertime survival of juveniles. That summer Meyer spoke on local radio stations, relaying the same message: coho are struggling to survive; we need your help.

In November of that year, the Mattole Salmon Group's newsletter, which is mailed to every watershed resident, published the front page article, "Coho Salmon on the Brink of Extinction." Like the public presentations earlier that summer, the article emphasized that the previous winter had seen the lowest adult coho returns on record, and that "extinction is imminent" (Mattole Salmon Group, 2010). On July 7, 2011, the free weekly *North Coast Journal* carried a front-page story titled *Last Call for Coho: An Iconic Species is on the Brink in the Mattole Valley and Beyond* (Arroyo, 2011). In October of 2011, the Mattole Salmon Group's newsletter contained an article acknowledging that the winter 2010-2011 spawner surveyors observed ten adult coho – up from the previous year's three observations – but the tone remained grim, with acknowledgement that more stream miles had been surveyed in the recent effort than ever before in the past twenty-five years (Mattole Salmon Group, 2011).

The spawner surveyors of the Mattole Salmon Group focus primarily on observing adult Chinook and coho salmon, and less so on steelhead. This is partly because the less-abundant salmon are their conservation priority given limited funding; the two species of salmon also generally return to spawn earlier in the season than do the steelhead. The Mattole River Chinook salmon run generally begins as soon as the river mouth bursts through its beach sand berm as a result of the first substantial fall rainstorms. This often occurs sometime around October. When the river mouth opens, Chinook and usually some steelhead will begin to migrate back from the ocean. At this

time, adult coho salmon may also be returning, though the peak of their run usually comes later. While all three species certainly may be returning into the river at the same time, the peak of the Chinook run usually takes place first, in December, followed by the coho run peaking in January, and the steelhead run which peaks in February or even March. A very small percentage of the steelhead, deemed summer steelhead, return late in the spring, seek out a deep cold pool in which to wait out the summer, and likely spawn when the first fall rains arrive later that year.

The preceding information has aimed to ground the present research in both the academic literature as well as provide a sense of the Mattole Valley and the orientations of her people. In the academic poaching literature – which is limited overall – there are very few studies inclusive of local peoples’ perspectives if they are neither poacher nor game warden. There is essentially no literature on the perceptions and attitudes regarding poaching amongst community members – poachers and non-poachers alike – in Pacific Northwest watersheds where threatened or endangered wild salmon are today being poached. While there is research, chiefly quantitative and not concerning poaching, that examines ‘willingness to pay’ for salmon restoration, Bell et al. (2003) called for further study of individual preferences concerning local salmon enhancement. Despite the widespread recognition that wildlife law enforcement is underfunded and understaffed, and acknowledgment that command-and-control is likely a fundamentally flawed approach, there is alarmingly little research on alternative, community-based strategies to prevent or respond to poaching.

Berkes (2004) stated that in order to ground conservation efforts, “we need a more nuanced understanding of the nature of people, communities, institutions, and their interrelations” (p. 628). Highlighting the role of peoples’ beliefs and value systems, Smith et al. (1997) – while they did not address poaching – provided one such nuanced understanding, highlighting the role of peoples’ beliefs and value systems in the context of coho salmon restoration in coastal Oregon. They concluded,

“Gaps between government and locals, misunderstandings between scientists and citizens, environmental and economic interests, need to be bridged. These gaps, misunderstandings, and differences are considerable” (Smith et al., 1997, p. 15.)

These gaps and uncompleted bridges exist within the salmon restoration movement as well as within the literature. This research seeks to fill a small segment of both voids. The Mattole Valley is one place deserving such focus, as it is home to a particularly remarkable ongoing socio-cultural and conservation challenge.

RESULTS

Two interrelated sets of results are presented below: current local perceptions of Mattole salmonid populations in regards to their long-term viability are discussed first, followed by perceptions and feelings concerning ways people currently interact with Mattole salmonids. While the latter section presents perceptions and feelings about various types of human-salmonid interactions (i.e. catch and release fishing, monitoring activities,) results specific to poaching are presented in further detail.

There was broad agreement among most participants regarding their perceptions of the long term viability of Mattole salmonid populations. Nearly all participants perceived differences in the viability of steelhead versus salmon. There was general consensus that the Mattole River steelhead population is more viable than either of the two species of local salmon, with coho being the least viable species. This was expressed in statements ranging from, “The steelhead are hanging by a thread. I think that the coho are lost, and I think that the Chinook are in extreme danger of being lost,” to:

“I believe our steelhead population is healthy and I don’t think its going anywhere...I’m not sure about the spring-run steelhead, or what we call the summer run here. I’m not sure how viable that is due to low flows in the summer, and with changing climate, that could exacerbate the low flows, could be more severe. The Chinook population I believe has a very good chance of recovering and becoming healthy again. The coho population, (pause) I’m very skeptical about whether or not we’re going to have coho in 20 years.”

It was common for diverse participants, when sharing their perceptions of the salmonid populations, to voice concerns about the effects of climate change, ocean conditions, and

low summertime streamflows. Integrating these concerns into the futures of the various fish populations, a common perspective was, in one participant's words, that "the salmon are going extinct...I don't think the steelhead are going extinct."

The above responses paint a picture of general agreement. However, other responses to the question of local salmonid population viabilities are noteworthy.

Certain individuals lumped all of the Mattole fish populations together. One participant was asked, "What is your overall perception of the status of the populations today, like are they viable?" He responded, "Yes! Yes! They're all over right now; I could throw a mosquito with a fly rod out there right now and get a really good dinner in about fifteen minutes." When asked to speak separately about each of the Chinook, coho, and steelhead populations, this participant evaded the question and instead smartly replied, "You're catching little steelhead; you're not catching salmon, this time of year."

Another individual also evaded the question, but made a point of emphatically stating no less than four times during the interview that "the river is alive with fish!" This individual explained:

"I'm not a predictor of Mother Nature. Fish have always run the river, species of whatever kind...I've been on that river working and watching these guys and gals spend five minutes in a [wet] suit, and come back in and come out, get their pay, and go home. They don't count dick shit. They can't! You get on this river at about 6 o'clock in the evening, when the gnats come out: that river is so alive with juvenile fish, all up and down the river: they're feeding off of those damn bugs. [But] these guys are out in the heat of the day when the fish are all pegged up, trying to count fish...I don't buy into the count one bit. I believe it's just a sucker way for them to get paid. They're on a government paycheck. If they really want to count fish, get out there when the fish are feeding. I go to work early in the morning: bugs are out then, too. I drive up to

Honeydew, crossing the A Way bridge, or the Mattole bridge, I take 2 or 3 minutes at each bridge and stop: that river is alive with fish!”

When the question about the future ability of Mattole salmonids to persist in the future was rephrased for clarity, he responded, “There will always be fish.” When he was asked if there will always be the three species of fish in this river, he responded:

“I do. I do... There is no one element that is gonna get every one of them, unless it's disease in that species of fish. No one element – not the sea lions, not the mud, not the catch and release – they're not gonna nail every God-dang fish. For that to happen, it would have to be some massive catastrophe, like the country blows itself to pieces, or like a big asteroid hit the planet, something that does total devastation, 'cause you can't get every one. Nature won't allow it. Nature won't allow every one to be gone; it just ain't gonna happen. They said that about the wolves: 'Extinction.' So they protected them. Well the wolves were never extinct. You know?! Now they're importing them into Wyoming! Importing them into Montana! 'Wow, they're going extinct! We're killing them all!' Shit, they're flourishing. But they were hiding out, you know? The [fish] numbers is gonna vary due to circumstances. But they never will be extinct. There's just no way.... They'll hybrid 'em, but they won't go extinct. Humans will hy-breed fish, you know, make 'em hybrid, but the natural species will not go extinct, you know unless we have a major, worldwide, catastrophe.”

According to two other individuals, while the ability of the two salmon populations to persist in the future is, in the words of one, “very poor,” there are more salmon in the river than some say. One man expressed that the steelhead run naturally fluctuates, and that a few fish taken from it here and there does not make any difference. I asked him if he felt the same way about that with regard to the salmon, and he replied, “No, not at all.” When asked how he feels about the different species, he responded:

“The salmon runs are small. Our salmon we have come through, if you’ve spent much time with them, which you probably have, we have big salmon that are impressive to see. I see why people want to catch them. When the first runs come in, there’s a 50-pounder in every hole. I mean there’s some big fish. I’ve seen people kill ‘em, and the people that do are (pause) some of the locals and I think it’s fine. And they usually take one fish a year. Just to do it ‘cause they’ve done it forever and their great grandpa did the same thing. I think they have the right...Definitely...I mean, that’s their heritage, that’s what it is. Yeah. That’s fine. I don’t need to take a salmon out of the river. I sure like seeing them, though...And there’s not a lot of them. And there’s not as few as they think, I believe.”

A different individual also responded to the question by speaking of “the salmon” in generic terms, but offered a more direct response to the question of kings (Chinook salmon) versus coho (also commonly referred to as silver salmon). First he stated,

“Well the salmon, it [their ability to persist] doesn’t sound like it looks very good. From what I’ve seen just in my lifetime, it doesn’t look like we’re gonna have salmon forever, maybe not even for the rest of my lifetime. Steelhead on the other hand seem to be doing quite well.”

When asked about his different perceptions of king salmon and silver salmon populations, this person expressed some uncertainty. He paused, repeated the question, and then stated with the intonation of a question, “Far as I know, they’re both in pretty bad shape. I know one’s worse than the other, but I mean none of the salmon are doing good, far as I know?”

From these testimonies, it is evident that while there is broad agreement that the Mattole steelhead population is more viable than either Mattole Chinook or coho, there are some who do not differentiate between the species of salmon. There are, also, those for whom the question of population viabilities becomes entangled with skepticism of the

salmon and watershed restoration efforts conducted by local nonprofits. These responses are among many that relate to the second key research question, which concerns the ways people interact with salmonids in the Mattole.

Participants exhibited a broad spectrum of concerns regarding the ways different people currently interact with salmonids in the Mattole River. While many expressed angst over poaching, others perceived poaching to be largely a concern of the past. Others expressed support or lack of concern for specific instances of poaching, or poaching by certain people. While some expressed gratitude and admiration for the work of the local salmonid enhancement and watershed restoration organizations, others expressed contempt for and questioned the motives of people working for these organizations. Many participants expressed concern about or dislike for catch and release fishing.

Concerns about poaching varied in the following ways:

“That [type of poaching] in particular really does not settle well with me: the summer steelhead thing. And in recent years with the coho crisis, any poaching that has a chance of taking a coho is really pretty objectionable to me. Actually ANY poaching now, since the coho are in trouble, because if you go out...people don't really know what they're getting, if they get something, until it's like dead or going to die, and at that point it's too late. At this point in the crisis, the taking of a single male or especially female coho, could be very, very damaging to the long term prospects for their recovery. So there's really no justification...I think before coho were really on the road [to extinction], I was like OK, you know, I'm not OK with this, but if you really really need this fish to survive, I'd say OK go out and use a barbed hook and take a steelhead every once in a while, even if it's out of season. I didn't think it was a big problem. But now that you have a chance of catching a coho, that's a poaching act: if you have a chance of catching a coho, I'd say that you just – ethically and ecologically, it's not acceptable in any scenario at all, even if you're starving.”

“It sounds like there is a lot of poaching going on out on the river... Um, I’m totally against it. I understand why people like crave it though, I totally understand why when the first rains come and the mouth opens why you have this instinct to like go out and see fish and take fish, you know, but it’s tough because we live in a time when there’s no fuckin’ fish left, so some people choose to continue to do it and some don’t.”

I asked this individual, “So why don’t you?” He replied,

“Well I don’t take fish because I know that if I took fish, and if everyone else took fish, I should say salmon, there wouldn’t be any left. So I know that, if you’re gonna talk the talk, you gotta walk the walk. And I would love to go out and catch a king salmon. But I know that if I did it, and if everyone did it, then there’s no king salmon for the future, and there’s not, I mean, or coho.”

Others voiced their concerns about poaching by plainly stating that there are not enough salmon.

One individual strongly criticized poaching when done for financial gain. He explained how, while people in the Mattole Valley used to fish “for sustainment: winter food,” he had known individuals in the past who sold the fish. In his mind, spearing fish and taking out hundreds at a time to sell on the black market in Eureka, as had been done, was simply wrong: “Back in the early days, well early days to [us], the white man greedy bastards run the goddamn gillnets across this river!” This condemning statement is interesting, being that it came from a Mattole Valley resident whose forebears were some of the earliest white settlers in the valley. Thus, it is a criticism of his own people. Of further interest is the addition of another participant, who reflects that he knows other places in northern California where such practices still occur. The two men agree in their denunciation, and further share disparaging opinions about harvesting fish with

pitchforks, as was previously common in the Mattole River. The original interviewee explains why a “pitchfork is a bad thing. I mean you killed ‘em, [and] you don’t get them with a pitchfork for one thing ‘cause you don’t have a barb on it. It slides right off. They’re a dead fish.” Reflecting on such wasteful killing caused the two individuals to murmur in collective disapproval.

Another interviewee expressed that he “had a hard time with” people not abiding by the rules, but stated that “there’s some old timers on this river that aren’t ever gonna change.” Reflecting that there is always going to be a certain amount of law-breaking no matter what, he made a significant observation about the prospects for community response: “If I saw someone doing it in their backyard, you know, you just keep your mouth shut. You don’t want to end up on the wrong end of the gun or something!”

In contrast to the concern for personal safety should he confront a poaching neighbor, another interviewee’s main concern was for future generations of people in the Mattole to be able to enjoy fish. This was in line with numerous others who stated that there are simply not enough fish for poaching to be acceptable. Referencing expected rates of salmon returning from one hundred hypothetical adult spawners, she stated her impression that it is “really short-sighted” for people to think that they can take fish. She further stated that, while it is concerning to her whether or not the steelhead fishermen take some fish, the salmon that she believes are mostly taken by local residents are of much greater concern:

“That’s mostly local residents who grew up here who feel like it’s their right to take fish...I think it’s short-sighted. I think Yes, maybe it might be their right, but if they have children, and they

want their children to continue to be able to fish, then they're not going to be able to, if they continue to take some at this point."

Of those participants who expressed concerns about poaching in the Mattole, some were unsure of its current extent compared to historically. One participant ruminated about how many people continue to poach fish today compared to when she first moved to the area, concluded that she would hope there are not very many, but lamented, "It's just that we don't really have any enforcement." Another individual stated with confidence that taking fish out of the Mattole River to eat has diminished by 90% in the last 30 years, but nonetheless reflected, "It's not a good householding idea at this point. It's kind of like in the same category as eating your seed corn."

In contrast to those above, there were also participants who voiced little to no concern about certain types of poaching or poaching by specific people. In general among these participants, little to no concern existed regarding poaching of steelhead. Many also stated that occasional poaching by local residents was of little to no concern. One man succinctly combined both sentiments, saying, "Locals taking a few steelhead home doesn't matter."

In addition, there were those who made statements in support of some poaching. One interviewee stated frankly, "It may be right for people to eat one fish a year, or in your life, out of this river." Another participant said,

"It should happen [that we can keep and eat fish out of this river.] In my opinion, from watching them year to year, I've watched the salmon counts and the steelhead counts, when they're wrong and when they're right. It feels like we did so much work to save it and make it better, and we're the first people they shut down. The sportsmen, cause it's the easiest...Back when I was in college, an

environmental ethics class I took, back then the number was, for bank fishermen, on a species for a given year, was somewhere around 1% of overall take. And so, and we're the easiest one to gouge, to cut off: we're controllable; we buy licenses from Fish and Game. We went from two fish a day, to none. And that's harsh....and then they took the best month of fishing, they took the month of April...it was fun, sunny, the river was good... It irks me. It's a bad move. It soured a lot of people."

Another individual made similar statements in defense of locals taking fish, stating that "it happens on such a little, tiny scale, you know, by the locals, that I don't even think you notice it." He stated that he feels that the locals have a right to take a fish now and then, "for what we put back into it." He explains his personal background and what he has done for the river and the fish over the years, hinting at a change in the local salmon organization's involvement with local residents:

"I don't need to justify myself, but I've been helping this river since I was ten years old. This little creek they took the culvert out of, my brother and I would go up in there and catch all the trout at the top of it 'cause it would dry up, so we'd go up there with a five-gallon bucket and we had this little Philippino net....and [we would] let them all go. Back in the early 80's through the grammar school we were part of the [Mattole Watershed Salmon Support Group program]: they'd catch 'em when they were mothers and spawn them out and we'd let 'em go as kids. You know, the locals were involved at that point."

Another individual expressed a unique perspective on what he views as a benefit of fish being taken from the river: "The ones biting the fishing bait is already dumb, and maybe that part of the species shouldn't breed... You're kind of making a strong breed." He clarified that he was referring to all fish, not just steelhead.

One individual justified his own poaching activities in a handful of ways:

“Illegal fishing, you know like what I do, go out and catch one or two every year, illegally, and I admit to doing that, I want you to put that in there...Catching ‘em afoot, chasing them with a three-foot stick. You know that’s sportier [than other fishing methods]...I still do it, and I’m proud to do it, but I only take one or two a year, and I’m proud to admit to it. I’m keeping a family tradition alive, but I don’t abuse it. And that’s all there is to it. And I will admit to it to the Fish and Game; I don’t really give a shit. Catch me if you can. That’s all there is to it.”

When asked if he would just wait until steelhead season and take steelhead instead of salmon, this individual replied,

“I shoot those in the river...No, I want a fresh salmon! Don’t mess around with family tradition and heritage! I help put in salmon structures, I’m entitled to have one fish, or two.”

Thus his entitlement stems not only from his family tradition, but from his “sporty” harvest method, and his work installing instream large wood structures for salmon habitat restoration.

While intensely strong feelings surround perceptions of poaching (particularly of Mattole River salmon), poaching was not the only interaction between people and fish that evoked harsh judgment. Many participants expressed either consternation, outrage, or some degree of ambivalence about catch and release fishing in the Mattole River. Some expressed beliefs that catch and release fishing is probably good from a political standpoint in that it keeps pressure on agencies to maintain fisheries such as Mattole River steelhead, and causes sport fishermen to advocate for watershed restoration. However, some participants who made these positive statements also expressed concern over certain catch and release fishing practices which they perceive to harm the fish. One particular statement about catch and release fishing was spoken by more than one

individual; in both cases, accompanied by a curiously restrained tone: “I don’t care much for catch and release fishing.” Among other interviewees, a common reference was to catch and release as “torture and release.” More than one participant stated that they “don’t really get it,” or “don’t see the point.” As one person explained:

“I’m kind of torn. I actually don’t like the idea of catch and release, personally, because I feel like if I’m going to go out there and battle this other animal for life, and so you bring it in, and if I and the animal have put all of this energy into the battle, to be looked at and released, it seems kind of silly. It seems really silly...But on the other hand...Think about kids and others who don’t have the opportunity to live here, and they go out and spend that time on the river, and they catch a fish and see how beautiful that fish is, and that might make them want to protect that fish.”

Interestingly, individuals active in the salmon restoration community as well as admitted poachers often had similar perspectives on catch and release. A longtime salmon restorationist stated:

“I’m against catch and release, against any fishing in the Mattole...When we advocated for a change to catch and release...I advocated no fishing whatsoever. Because I feel that you either have a meat fishery or no fishery. I’ve done and seen enough catch and release that the collateral damage is huge and I don’t think it’s appropriate. Fish die. They die, and it’s a nasty percentage, more than anybody wants to talk about.”

Compare this to the words of one admitted salmon poacher:

“Catch and release stresses and eventually kills the fish before it ever gets to its destination...It’s wounded, and it’s gonna die. I won’t say it dies all the time, but it’s so stressed, that more than likely in my opinion, it doesn’t make it to where it wants to go...Out here, any size fish can be hooked and traumatized, again and again and again, over many days, sometimes in one day...The catch and release program traumatizes the fish. It’s got enough shit to deal with just to get in fresh water! Let alone driftboats and party guys!”

This interviewee stated that because of the dearth of local businesses in the valley, the catch and release fishermen are not contributing anything to the local economy, but are “just destroying our natural resource.” A different individual lamented poor stewardship ethics among non-local guides resulting in harm to the fish, wistfully wishing that only local residents could be allowed to guide and imagining the benefits that would come with such an arrangement:

“[Catch and release fishing] is the biggest thorn in my side and probably the thing I hate the most, for the single fact that, for one, all the guides are from out of town. There’s rarely any local guides ‘cause they got all the customers down there, and they come up and flood all of the good holes, and during the prime time of the season the river’s completely full of tourists that don’t live around here, that are catching the fish, often keeping them for themselves even though they’re not supposed to, and just, you know, marauding the river until if you’re a local, you don’t even want to go down there, because you don’t want to deal with twenty boats floating through your hole while you’re sitting there, waiting to catch a fish. You know, all the fish have been caught that day by the time you go, we call them all ‘sore mouth,’ because they all had a hook in them by the end of the day. That’s hard on the fish. It sucks, if you live here, and you know that if they weren’t allowed, or if they were only allowed with you, you could make a profit off of it, and if only locals were allowed to guide, there would actually be money in it, and they would have a reason to not have the tourists take fish, you know, and all these other benefits from that.”

Last, one interviewee stated that he doesn’t really prefer catch and release, but he does it, the implication being that it is all he can do in contemporary times. He explained,

“We’ve fished there forever and should be allowed to keep a fish. I’d like to be able to keep a steelhead... We used to smoke a lot of salmon and lamprey eels, so catch and release: I don’t really like it. I was not happy to catch a fifteen-pound steelhead and have to put it back, was not happy at all.”

Understandably, some catch and release fishermen had positive things to say about this activity. Perhaps most concisely, one individual stated, “Catch and release is one of the most noble things that I do. It’s predation in an elevated form.” Other catch and release fishermen spoke of the thrill of this type of fishing, as well as the benefit of seeing what is in the river:

“The steelhead are so big and it’s a relatively small river, and so all of a sudden you are connecting with this weird-ass thing down in [the water] there that’s existing right here: it’s only been like fifteen, twenty feet out from you and you haven’t been able to see it, but there’s these huge-ass beings down there that are powerful and significant!”

Another interviewee explains:

“It fills the day. I mean it’s really exciting...A salmon to me doesn’t hold a quarter of the fight that a steelhead does...It is flat on when you hook a steelhead. It’s great. However long it lasts, it what you’re there for, for the fight. ...That’s living. Just having the wildest thing you could imagine, holding on- trying to hold onto it, it’s just the same. And when he beats you and throws your lure or your plug back at you, whatever you’re fishing with, back at your face and you have to dodge it: you just have to laugh. It’s happened so many times. It’s amazing how much power they have. It’s a lot of fun...Its enough fun and good enough for the soul, so that even if we can’t keep them, we’re still heading down there every day that we can, whether it be before or after work or on the weekends. It’s exhilarating. If you hook a fish in the morning, it’s with you all day long.”

Two steelhead fishermen interviewed together had these things to say about their sport:

“...the incredible ecstasy that I feel when I hook a steelhead and have it on the end of my line and bring it close to shore and carefully release it and see it go back into the river: it just sort of trumps [everything]. I can’t stop doing it.”

The other fisherman nods and adds, “I get so much joy out of it.” The first fisherman continues:

“...But I want to go back to one thing about why we fish for these fish: It seems to me that one of the things we’re doing, is we’re almost doing a population census of what’s in this river in the winter, because without the report cards, we don’t know what’s in this river in the winter...usually the clarity of this river in winter is such that you can’t see anything, so we’re almost, it’s another layer of hook and line sampling? But there is this amazing creature that is going up this river in the winter that if you didn’t touch it on the end of your line, you’d never know it was really there.”

The other fishermen explains, “Fishing is not only trying to connect with the fish in the river, but you see a lot of other things.” The first fisherman adds:

“And I think in our minds, it’s all together: you know, you don’t divorce the two, the birding...fishing...you see incredible nature, and then you come back to that same spot the next year, and the next year, and the next year. Because you have to stand on that one place as you stand there fishing, it forces you to observe nature more than anything I’ve ever, more than just hiking or biking: you’re moving through. So it’s just wonderful...It’s all part of the experience.”

When asked what the benefit or the meaning of that experience is, this interviewee responds:

“It is that whole bioregional sense of place. There are people who travel all over and who fish all over; we have a place, we know this place, this watershed, this river. That’s part of it, is that sense of place...you know, rivers are so great and magical and all that; fishing is so river-centric; I really prefer that. You know, there are people who will just move around and they’ll pay a guide to go to Patagonia and go fishing, right? But I think that’s not (pause); we like to know a place...A lot of fishermen go a lot of places to fish, but they usually only have one home river, and I think we would both say that this is our home river. This is the river that we care most about. And this is the river where the person who we knew was the best steelhead fisher that I have ever known, his ashes are

in this river, and we put them there. We had a group of people up here and we went down and paid our respects to Jack and to this river, and that's how important it is to us, and you know, any group like the Mattole Salmon Group, not tapping into something like that is a mistake.”

As with catch and release fishing, there was a wide spectrum of responses in regards to the local nonprofit salmon restoration organization, the Mattole Salmon Group. Various participants voiced frustration with the organization. These statements ranged from relatively mild consternation to outrage. Two steelhead fishermen interviewed together had this to say:

[Fisherman 1:] “One of the things that frustrates us is the Mattole Salmon Group people... There is a conflict. I mean Bill had rocks thrown at him by people [saying,] ‘you are a bad fisherman, you’re trying to hurt the fish.’”

[Fisherman 2:] “John actually ended up intervening, saying you know ‘this person is not the enemy!’ But that was like ten or fifteen years ago.

[Fisherman 1:] “But I still feel like, I don’t think anybody at the Mattole Salmon Group fishes... I feel there might be some tension between some of the Americorps-type people in the group who feel like [fishing] is wrong.”

[Fisherman 2:] “Some of the people in the [early years of the] group would always ask me, like Toby was very interested in like, ‘hey, how was the run this year?’ And like John, he’s always interested.”

[Fisherman 1:] “But they’re more of the old guard, you know, the younger enviro types who come and stay for a couple years and move on, it feels to me like they’re very anti-fishing... [But] it should be a natural alliance...”

[Fisherman 1:] “I guess that’s the other thing, is that in the Mattole Restoration Council or the Mattole Salmon Group, people come and go: they’ve been here like three or four years and then they’re

gone; the fishermen are like, they've been coming here for twenty or forty years, and it's a real waste of a connection is that, but so I don't know if that's curable...Just more communication and connection, you know a barbeque, would help both sides understand each other better. Certainly people who stay at our house, we tell them to quit using bait,"

[Fisherman 2:] "And we make them read *Totem Salmon!*"

Other interviewees expressed their frustrations with Mattole Salmon Group in more accusatory ways. One person stated:

"Mattole Salmon Group: it irritates me. I think it's a bunch of money wasted. Its taxpayers' money and you have people doing knuckleheaded things right and left. They don't talk to the locals, to get information on anything, rarely, just one thing after another. And when they tell you something that you know is totally wrong, and they're like 'well that's the way it is.' When I see someone from the Salmon Group and they tell me there's not fish in the river, and I was down earlier that day looking at them, and they're like, 'really?' And that's happened more than once...And that's your job? And you're probably funded for that, and making more than I do a year? That pisses me off...I think the Salmon Group needs to be some of those [local] people. That would be money well spent. I think it's money wasted right now. I mean it's almost a joke. Which is sad. It sounds good. I think it began well."

I asked this person when he thought it went wrong. He replied:

"I don't know. But somewhere along the way, it became maybe about money and jobs and just doing something. To get more grants. I think the dollar bill got in the way, at some point. And the low impact and the common sense went out the door. Might be horrible to say, but that's the way I feel. It bugs me, it does. I think with a fraction of the money, a couple people – who probably wouldn't take the job if you gave it to them – could do a way better job."

Another participant shares a similar perspective, though he references “these organizations,” ostensibly the Mattole Salmon Group and its partner, the Mattole Restoration Council:

“Comes down to money. I mean, do people really care, about the salmon, truly? It’s strange these days... There are a few people who are just getting started, getting their feet [wet] and there are a few people who do care in these organizations, I truly believe that there are a few people that truly care, but for – here I’m gonna spit a stat off the top of my head that I’m totally ignorant about but – I’d say that 25-50% of them are into it for the money and they’re going to be crooked, and jerk it around, and make things be delayed, and do whatever they do.”

Another individual stated his perception of how the money works more specifically, claiming that the grant writers get fifteen percent of the grants that they write. He claimed to know of one project in which the grant writer pocketed \$750,000. He also admitted that this information is from a third-hand party, which he said is not a good thing, so he asked to not be quoted on it.

Another participant began by stating that he was involved through the grammar school in the early work of the Mattole Salmon Group, saying, “the locals were involved at that point.” When asked what happened, he explained:

“I don’t know, grants. Money... And the locals kinda got pushed aside and pushed out; their input didn’t matter. Now they’re getting grants to count fish, “river restoration”... I swear out here they don’t give a shit, they’re doing it to get the job done. The County, Fish and Game, the whole bag of works. It’s all political and I’m not political. (laughs)... I know that our Mattole Restoration Group, God bless ‘em, but they’re really inefficient. They really are. And every local will tell you that. A good example, they just don’t get any input from the locals. Like zero, goose egg. It’s like they think that we’re ignorant. And they’re doing all these things for the “riiiver,” slash grants, slash money in

their own pockets. You know, it's just: the locals out here are seeing it and we're just calling bullshit, and they're doing these counts out here and we're just like 'ffff! whatever!'"

When asked how he thought that the problem of no local input could be solved, this individual stated:

"Well the reason locals don't give their input is it gets to the point where it's pretty much pointless, 'cause they're gonna do whatever they want anyways...Everyone out here feels that they're out here for the wrong reasons: to help themselves.Putting in these wood and logs that are going to float away the next year....They're going about it wrong. It [the river] really needs to be dredged, the lower end [of the river]...Just the bottom stretch. Like from Buehling's down, and not even the whole thing, just some sections, and give the creeks some place to drain...The water was sixty feet deep at that bridge before they started logging."

When asked if he thought that, now that those forested slopes have grown back, the river would clean itself out naturally with a couple of really good rains, he nodded enthusiastically but said,

"No: because it just spreads out. What you need to do – I don't know how much you played with water and rocks – You need like a ladder, you've gotta funnel it up, like rip raft, get some height to it, some drop to it, get that water turbulence to flush itself out, but you need that rock barriers to get - and you're gonna get height out of it, drop, and flow, turbulence: it's those big rocks when the water hits it, to create that turbulence...that's what it needs, it need the big rocks, big boulder, big rip raft, and not in little slivers. They always put it on one side...put 'em on both sides and get the funnel, the turbulence."

After an animated and lengthy discussion about rip rap, this individual sums up his thoughts on the Mattole Salmon Group. When asked for his take on the Mattole Salmon Group and the coho crisis, he explained simply, "Keep your count down, keep your

money up. It's that simple. They're counting every other one. If you want a correct count, you better count them yourself."

He expressed extreme irritation that locals have no say and no vote on who gets jobs at the Mattole Salmon Group, stating that there would be more local support if there were someone local in charge or on the board of directors. He said he used to be a member and paid his dues, but after one particular incident a couple of years ago, "don't even call me. Told them to stick it up their ass. Fuckin' ignorant, excuse the term, hippies. Fuckin' hippies. With their colorful ways. Arrg! It's frustrating, it's frustrating." (This statement belies confusion about the two lower Mattole Valley environmental nonprofit organizations. The Mattole Salmon Group has never been a membership organization to which members pay dues. The Mattole Restoration Council is a member-based organization to which members pay dues.) While the excoriation from this interviewee was severe, another individual, who also questioned the Mattole Salmon Group's salmon numbers, concedes that the organization has done some good in certain areas.

When asked if he thought that more local people could get involved in efforts to increase the numbers of fish, he stated:

"I think they [the Mattole Salmon Group] have put in a pretty massive effort. Because of the independence in the area and the type of people that live here, it's hard, that outreach. Most of them [local residents] want to be left alone, or have their own thing going on; that's part of why they come here. So, given it's that hard of a community to break into the little cliques, I think they've done an exceptional job."

A different individual explained having some confusion about the approach of the organization in terms of its avoidance of considering oceanic effects on the salmon:

“I’m kind of confused about the approach of the Salmon Group, for instance, to the ‘coho crisis.’ There seems to be...almost an avoidance of considering that ocean conditions might be the problem, and not the watershed habitat. I think that could probably be demonstrated by some kind of research project. So, to me, that’s another form of climate change skepticism. And I think it’s really denial because some of the same people that are doing it are climate change fanatics, so (pause) it’s just a matter of some information that you know is there but that you don’t want to let into your life.”

The above statements reflect a variety of concerns, misunderstandings, and frustrations with the Mattole Salmon Group. There were also participants who spoke positively about the local nonprofit salmon restoration organization. Some stated personal as well as financial support that they give to the organization. Others conceded that “there will always be those people who don’t believe the data.” Occasionally interviewees offered their own take on some of the aforementioned concerns of their fellow citizens.

For example, one participant said:

“I don’t have any problem with them [the Mattole Salmon Group]. I think they’re good, I think they do good things. I love that they are keeping on the community’s mind the actual numbers. Despite what people are saying about them skewing the numbers to keep funding. I think it’s important that we keep them on the forefront of our minds, where the numbers are at...I totally believe their numbers. And even if you don’t sit down and go ‘Okay, there was eleven fish on this day,’ you have to look at the percentages: if you’re catching one salmon to every fifty or sixty steelhead, you know, you don’t have to have exact numbers to know that the salmon are in trouble. So I feel like overall, even if you don’t want to believe their exact numbers, you cannot deny that there are way less salmon than there were, and there’s way more steelhead than salmon. And so, yeah, I think they’re doing good work, and I think

they're an important part of the community and they have to continue doing the work that they're doing."

Another individual concurs that he trusts the data of the Mattole Salmon Group a great deal, and adds:

"I think that Fish and Game is a tough bureaucracy to work with too, and I don't think the Salmon Group's getting to do everything that they feel like they should do... You wish Fish and Game had the flexibility and they'd do more towards their mission, if they could be more responsive and more flexible."

When asked where she gets her local fish information from, one participant exclaimed in a celebratory tone:

"The Mattole Salmon Group! Well it's true: I mean, if it hadn't been for the Mattole Salmon Group, we wouldn't really know, as well as we do know, what the, what any sort of analysis is going on. And hopefully their numbers are lower than what's really there, you know, you always hope. But they're doing their best to project what they can, and they certainly have had more data than almost any other watershed around here... More people know about the state of the Mattole coho than I would have ever thought. Actually, it's quite a phenomenon right now, maybe it's in the circles I run in, that could be, but there's a lot of knowledge out there, and I think the Salmon Group has done a really great job of putting out the word of what's happening."

At the end of one interview, the participant was asked about any other issues that are really essential to the future of salmon in the Mattole and how people relate to them. Her response touched on the need for increased local involvement in the organization's activities:

"I think it's really important for people to see fish. And in that way, like the Summer Steelhead Dives that the Salmon Group puts on are really wonderful, and I think it would be nice if – a lot of locals do participate in those dives, but I think that if there were ways for you know more of the schools to participate or the

younger generation in the various activities that the Salmon Group does...Even seeing the little fish is pretty incredible but especially seeing adults as well, you know I think that, back to your question about having some sort of custom or ritual, maybe if there was some way that, you know, I think that people poach fish when they're first coming up the river and they like go and spotlight the riffles, like maybe instead of just the poachers being there if it was the whole community coming to welcome back the fish, and see the fish, I think that that tangible connection would help the community, in the same way that the tangible connection of actually ingesting the fish creates that connection...I think that the interaction is really important for people to understand how incredible and majestic they are and understand why we want to keep them here."

As presented above, there are many different perceptions and feelings concerning the numerous ways people currently interact with salmonids in the Mattole. Among these various types of interactions, poaching is one of the key areas of interest in the present research, in part because it is a direct, physically embodied interaction between humans and fish.

Perceptions and confessions¹⁰ of poaching Mattole Salmon and steelhead are not terribly difficult to come by. While some appear above, additional accounts of poaching are presented below, beginning with the circumstances meriting most concern from a species conservation standpoint. Given the status of Chinook and coho populations compared to the more abundant steelhead, instances of poaching salmon are discussed prior to steelhead. As in the case of the occasionally undifferentiated "coho" versus "Chinook" salmon, the line between "salmon" and "steelhead" exists in muddy territory within some interviewees' minds. Given this, cases where salmon may reasonably be

¹⁰ Confessions include both veiled and direct admissions of poaching.

among the “fish” poached rose higher up on the scale of concern, and are thus discussed before instances of poaching that are clearly limited to winter-run steelhead. Among steelhead, poaching of the more rare summer steelhead is addressed first.

Approximately seventy percent of the people interviewed for this research firmly believe that adult salmon, mainly Chinook, are currently being taken by local people in the Mattole Valley¹¹. There is more consensus on this among younger people¹². Older people tend to believe that poaching is either a problem of the past (as by all accounts it was), or that it occurs today on such a small scale as to be insignificant. There are notable exceptions. Despite his perception that poaching has vastly decreased since the 1980s, one older man has become more concerned about it in contemporary times, given the reduced numbers of Mattole coho salmon. Also among the small handful of older research participants who expressed concern for or knowledge of local salmon poaching, two are steelhead fishermen who spend considerable time on the river. Another is an older gentleman who openly admits to poaching salmon every year. While no direct admission of poaching salmon at the first riffle with a spotlight and spear materialized during this research, three individuals stated a belief¹³ that certain local residents engage in this type of poaching each year when the river mouth first opens in the fall.

Many who express knowledge of locals poaching salmon state that people do so in order to eat the fish. Five men I spoke with confirm that they poach salmon to eat

¹¹ This includes individuals who admitted taking salmon.

¹² For the purposes of this paper, “younger” refers to people under the age of fifty.

¹³ In one case, the interviewee’s belief is based on one poacher who uses this method having directly explained it to him.

them. In addition, veiled references from others clearly suggest that they take salmon predominantly for eating.

However, a secondary reason that was raised is the taking of “one fat female salmon” in order to obtain her eggs, or roe, for use as (illegal) fishing bait. As one local fisherman points out, this does not preclude eating the fish, and the people who take a female with eggs will both eat the fish, and utilize the roe. A different individual spoke of people selling the roe to make a little extra money, while enjoying the added benefit of local popularity. Yet another individual expressed frustration with game wardens coming down on “some local guy sitting on the bank fishing (with) roe, ‘cause that’s the only way he knows how to catch fish. That’s crazy to me that’s a four hundred dollar fine. That hurts a lot of people.”

How do locals take adult salmon? Many people acknowledged that catching an adult salmon in the Mattole River is not an easy thing to do. One of the best opportunities is in the fall during years where an isolated rainfall event opens the river mouth to the ocean. Salmon migrate into the lower river. If lack of rain causes the river to recede, the salmon will stay put in certain deep pools. With a continued lack of rainfall, the river clarity improves, and it is not difficult to peer down off the bank into a pool where the salmon are holding. One fisherman talks about swimming with them with a wetsuit and mask. Finding them is half of it; catching them is the challenging part.

Poaching methods discussed and believed to be used on the Mattole River in the last couple of years include hook and line, spotlight and spear, gaff hook, explosives, and shooting with a rifle. It is possible that use of both a rifle and a gaff hook may be limited

to one individual; this man also admits to waiting in shallow riffles and tackling adult salmon bare-handed. No other mention of those fishing methods being in active use today was encountered. Likewise, only one incident was mentioned that involved the use of improvised explosives; use of this method may be limited to one incident in the last five years. One person mentioned touching adult fish underwater while diving with a wetsuit and mask, and rumors exist that adult fish have occasionally been taken this way.

The following excerpts, like some of those included above, give local human voices to these methods and motivations for poaching salmon. Embedded in many of them are additional matters of relevant context, and statements of significance. For example, one young man tells about an impressively large salmon being taken the previous winter:

“In that case it was someone pulling out a thirty-six inch king salmon out of the mouth of the lower North Fork and within ten minutes it was on their grill, and they got really excited about that, and their nephew was there, and the nephew actually caught the fish...I wish I knew how much poaching was going on, because if it's just this one guy - every fish counts, right, that's the potential for thousands of more fish (pause) - but if it's just this one guy, then probably, yeah, it is insignificant.”

As this was stated, it was evident that something else was clearly still bothering this individual. When asked, “But even if it were insignificant, would it be fair?” this individual exclaimed, “No! Cause I want to take one! That's the mentality; it's like ‘if you can take one, then I can take one,’ [and] we're just children.”

Another interviewee made repeated references to how “they taste better in the river” versus when they are taken from the ocean. Because steelhead are not typically

harvested from the ocean for consumption like salmon are, it seems clear that these statements are in reference to salmon being taken from the river. When asked what fishing in the Mattole River means to him, this individual stated:

“Good way to enjoy the outdoors. Plus you can get an idea of what’s going on that season: If you catch a couple fish, or if they’re hitting all day long, you kinda know what the river’s doing. Which is cool; it’s just like watching the apples, the plum trees, you know the fruits going off, let’s check the meat supply.”

This same individual continues:

“You get a sense of security I guess when there’s fish in the river, and if there’s no fish in the river all of a sudden you start to wonder, ‘Am I going to eat?’ That’s the way I see it. I mean they’re pretty to look at, but they’re mighty tasty and hopefully they can breed more than you can eat. That’s the name of the game, and if it’s too much then you harvest a lot.”

Demonstrating a very different perspective, two steelhead fishermen who were interviewed together had these thoughts about locals taking salmon:

[Fisherman 1:] “I’d feel much worse about somebody killing a salmon than a steelhead.”

[Fisherman 2:] “That’s like killing a condor. Killing a coho is like killing a condor. This [killing a steelhead] is like killing a bald eagle, or a peregrine falcon: Bad, bad.”

[Fisherman 1:] “Yeah.”

[Q: Do you think that happens?]

[Fisherman 1:] “That people kill, poach salmon on this river?”

In a sad, falling tone, this individual says, “Yeah, yeah, I do. And I don’t think it’s people coming into the valley; I think it’s people that live here.” The other fisherman adds,

“The people who might take a salmon now, they would be younger, I’d imagine, because they have to be, and they are raised here, and they feel like ‘they’re my fish.’”

Later in the conversation with these two fishermen, the topic turned towards people getting busted:

[Fisherman 1:] “The hardest bust to make is when somebody’s poaching. Those are the people that are going to be the most careful about not getting caught.”

[Fisherman 2:] “Yeah, if they really want a salmon, they’re going to get it at night.”

One younger local fisherman had mentioned “guys on the bank taking salmon.”

When asked about his view on this, he responded:

“I’d say that’s more of a local thing and that’s strictly poaching because I mean the river’s not open during salmon season. And the tourists don’t come around during that season, they come during steelhead season and they’re down there with their license so they can look [legitimate], you know, and they’re here to spend their time on the river more than to keep the fish.”

I asked him to clarify that with regards to salmon being taken, he was talking about prior to January first. He replied:

“Right, right. If you go out to the river at that time of year, (laughs) I mean, you’re only going for one reason and it’s to go get a salmon. Most locals who do that are getting roe for the steelhead season. They’re just trying to get one fat female so that they’ll have bait for the rest of the year. Often the bait’s worth ten times what the fish is, because everybody wants some roe (laughs) you know? So, you’re not only the popular guy in town, but you can make a small profit.”

I asked him how he feels about that. He said:

“Well, that’s a tough one. I mean, the fish are at a number where every little bit probably counts at this point, but if it wasn’t like

that, even if it wasn't or was illegal, I'd still say it ain't that big a deal. You know, I mean, when I was a kid, it was like your God-given right to go down and catch salmon and steelhead both, you know, and keep them. You didn't need to keep more than two or three 'cause they're so big and they're so much fish (laughs) you know, and you could can and everything else just with what you could keep legal. Now, if it's as bad as the numbers I've heard, then maybe every little bit counts. But if they are that bad, I'm not sure that's the deciding factor on them making it or not."

I asked him if he thinks the salmon numbers are that bad, and he replied:

"I think they're higher than like the Salmon Group counts are, by quite a bit, because I've seen those numbers and they're just too low. I know people that are *catching* as many fish as the numbers are, sometimes."

When asked to clarify if he meant kings or coho, he said, "Um, yeah, just random....Half the time I don't know, I just, you know, will hear someone say 'I got a salmon;' they don't say which kind." Later in the interview, this person expresses: "I would love to be able to take a salmon. Let's put it that way. I wish it was legal."

One local fisherman offered a few comments about locals taking female salmon for eggs, expressing his view of the current extent, why it is done, and how the locals handle it. When first asked about his perspective on the changing of the Mattole fishing regulations in the early 1990s, this individual stated, "I felt Fish and Game took it too far. We wanted catch and release, artificial bait only, so the people weren't catching the hens, the females, to use the eggs as bait." I asked if he thinks that still happens today. He replied, "Not nearly on the scale that it was. Not even close. If it does, it's probably a handful. Compared to three [or] four hundred." When asked if he felt that the numbers of

fish today, compared to back then, can handle the handful of people who might be taking a hen for eggs for bait, he said in an unconcerned tone:

“Yeah. And those same people that are taking them for eggs for bait now are the same people that are keeping them to eat them. They’re not just keeping them to take the eggs for bait; you can’t fish with it anyways. You know, they’re catching them now – salmon – you’re illegally fishing anyways. You’ve got your running shoes on and your five-dollar pole. It takes two casts and you get the hell out of there.”

For clarification I asked, “And so, you’re not worried about that?” He responded: “No. The locals take care of it themselves. As far as, ‘who the fuck is down there fishing in my hole?’ You know, you’ve got that mentality among some of the locals.” He then stated that he didn’t think he had kept a fish on this river since he was probably thirteen or fourteen years old. I asked, “Really?” to which he replied:

“Mm mm. No reason. You know, once every two-three years we’ll go down there and catch a salmon, have a big family barbeque with a salmon, but we don’t do it too often. And we don’t go down there and fill up our truck with salmon and smoke it anymore. Locals aren’t doing it, and that was a big local thing. You know, go down there, catch a big salmon and smoke it, have your Christmas presents. That doesn’t happen anymore.”

Later in this same interview, as part of his response to a question about the different runs of salmon and steelhead and their relative abundances, this individual states, “But I swear you only see one run of kings and that’s the first run. That’s usually the ones we try and catch locally.”

An older local man, when asked about his relationship to the Mattole River, shares this:

“Well I grew up on it. I spear fish out of it to this day, I mean well every year, when the salmon run, the steelhead run...I do go out and get a fish or two every year. I use a three foot broom stick with a gaff hook tied to it, and [out here], I’ll shoot ‘em with a 30/30, when they fin up. So yeah, that’s my relationship. I grew up on the river; I like to swim in it; I don’t want to see it destroyed.”

Later in the conversation he told of one particular Chinook salmon he was proud of: “I should dig up a picture of a female that I caught one time. She’d just spawned out, but she was still good to eat. Thirty-five pounds.” Another older individual, when asked about locals taking salmon, said: “When I first got there, they still speared and I think they still do.” When asked, “Who are ‘they?’” he replied, “That crowd that refuses to believe in reality.”

Of the two Mattole salmon, there is a widespread perception that more Chinook are taken by poachers than coho. This is in line with the majority opinion that there simply are more Chinook than coho salmon in the river. Chinook also tend to migrate back to the Mattole’s fresh water earlier than the coho; whereas the believed few coho come into the river cloaked in high winter flood waters, the Chinook come as soon as the first fall rains open the river mouth. Chinook also have larger bodies, and seem to exert a magnetic appeal, among poachers and protectionists alike. An individual mentioned catching coho in just one of my interviews (and in a way which challenges accurate interpretation; see below). Other fishermen – steelhead fly fishermen who have had caught juvenile coho on the Klamath – say they have never incidentally caught a coho in the Mattole River. Despite this, and despite the possibility that he is stretching the truth, the one individual did claim to base his understanding of the coho population on his

experience “catching them.” When asked about his impression of silvers (coho) versus kings (Chinook), the conversation with this individual went like this:

“I think the silver run is bigger. The king run comes in first.”

[Q: You think the silver run is bigger, in numbers?]

“Numbers, yeah.”

[Q: Why?]

“Just in catching them. The kings come up-”

[Q: Wait, I’m sorry I missed that: because of catching them?]

“Well, we can’t really catch them, we can’t fish for them, so we don’t know the numbers there, but in the day, was (pause) the first run was usually the kings and the chubs, you know the little ones? We call them chub eaters, they’re juvenile salmon, jacks exactly, they come up with the kings, along with the bluebacks ...Blueback is a juvenile steelhead...they come up with the kings, and they come up first. So the first run to come up is the slough of little steelhead, little salmon, and then your big salmon, big boys. And they come up, you know, anywhere from October to November. And then you’ve got the whole rest of the year of silvers coming up, for the next month and a half, two months. Choo-choo-choo-choo: you know, groups of twenty, thirty, schools of them.

[Q: And you think those schools of twenty, thirty silvers coming up, altogether, you think there’s more of them than the kings?]

“Mm hmm, yeah, I do.”

There is an obvious challenge in interpreting this man’s statement. He was asked about his impression of silvers versus kings in the present day, and the conversation immediately prior was solidly based in the present tense, as is his initial response (“the silver run is bigger”). Yet when questioned for clarification, he appears to cover his comment about knowing the relative numbers of coho ‘by catching them’ with the

qualifier that (now) ‘we can’t really catch them;’ he then refers to his knowledge from (back) ‘in the day.’ However then he appears to return to the present tense, referring not to ‘the schools they used to come up in,’ but to the way ‘they come up.’ Ultimately it remains somewhat unclear as to whether he is saying that this is something that occurs today. His responses to the clarification question and the follow-up question about the present-day ‘coho crisis’ seem to suggest that he is talking about the present-day coho run, though his knowledge and experience catching coho could very well be from years past.

Others point out that the likelihood of a poacher even being able to find an adult coho today is quite low. One fisherman says, “The numbers on coho are so small that I think a poacher would have a hell of a time finding one.” Another fisherman adds, “Nobody would target a coho.” When asked if they think that those who might take fish out of this river can tell the difference between the Chinook and coho, one fisherman reflects, “Oh, that’s a good question.” After a pause, he states, “I don’t think they would care.” The other fisherman agrees and, echoing the sentiment expressed by others, states, “No, they wouldn’t care: ‘a salmon is a salmon.’”

Regardless of whether or not law-abiding and conscientious steelhead fishermen have ever incidentally caught coho, there is the issue of salmon poachers’ ability and/or desire to discern a coho salmon from a Chinook salmon prior to killing it. When asked how many of the fish he catches are Chinook, coho, or steelhead, one individual insisted:

“I won’t say, I won’t say. Just once I gaff ‘em and they come out of the river [then I know what kind they are]. Yes I know the difference; Yes, I do! But once I hit them with the hook, I’m not

going to put them back...I rarely get them...I don't get them all; I maybe get one or two in the whole season.”

I asked him if the one or two that he gets over the whole season is generally a king salmon, and he divulged that yes, it is, noting however, “But once I get them with that hook, I'm not about to turn them back because I've already killed them.”

In some cases, the line between fishing for salmon and fishing for steelhead, like the line that separates poaching salmon from poaching steelhead, becomes hazy. One interviewee states that prior to the start of the legal steelhead fishing season on January first, there is the group of local guys that goes out to “test fish” in the Mattole River. The interviewee speculated that they do so in order to predict what type of steelhead run the winter may bring – although this early fishing takes place much closer to the peak of the Chinook run than prime steelhead time. Some poachers' statements suggest that while they may have a favorite fish, they may also poach whatever they catch, using different gear, methods, and seasonal abundance to take advantage of whatever species is present. Do the “test fishers” go out fishing for salmon? While steelhead fishing before January first is certainly illegal in its own right, the potential taking of Chinook or possibly coho salmon merit more cause for concern.

The individual who shared this information about the “test fishers” suspects that they do not discriminate between species, and voices concern about rough handling during release:

“The one exception [to ‘ignorant poaching’] is that I know a handful of guys that do go out even before the steelhead season – and during the steelhead season – and do some ‘test fishing.’ Now they're not taking the fish for food – that's what I've been told.

They're catching and they're releasing, but they're not using legal gear, and they might not be in a legal stretch and might not be in the legal season and all that. So that is a form of poaching, but it's mainly to get their fish kicks, I think... Those sorts of people do not discriminate as to whether it's a coho. And maybe treating it badly on the retrieve or when they land it, and maybe it swims away but it may not survive. I'm not sure of the skill level of the people involved in landing fish ... I tend to think that maybe they are a little rough, tend to horse 'em in. And they want to get their lure back so they're either going to land it in their landing net, or drag it up on the rocks... They claim they're doing no harm and I guess I thought that [previously], but since the coho thing happened, it's not forgivable... [They live in] the lower half of the valley, Petrolia area; they fish in the Petrolia area, too. I don't think they fish very far away."

Another form of alleged poaching that two steelhead fishermen and two admitted poachers expressed strong feelings about involves people coming from outside the valley and fishing in unsavory ways, such as snagging. Snagging, which usually involves the use of a heavy, large hook, is also known as 'foul hooking.' It is done by jerking one's line through the water so as to hook the fish anywhere on its body. One local steelhead fisherman expressed severe aversion towards those who engage in snagging, who he described as people coming "from town." Another steelhead fisherman echoed his sentiments, but took apparent pains to explain how local fishermen "take care of" non-locals who abuse Mattole fish. These comments were among those that were not specific to steelhead versus salmon.

"I have a problem with the person jackassing around and going out there and snagging a bunch of fish. I think that's terrible and it still goes on... That irks me, when you see people coming from town. And we've seen Fish and Game get 'em, and sometimes they don't know. It doesn't bother me as much when they don't know. Like Fish and Game had a drift boat pulled over at A Way (Park) and they had three cleaned fish. It's stupid, but it doesn't bug me

as much. That crowd of people is in every gamut of the outdoors, you'll find those people."

When asked, "So what does bug you?" this interviewee replied,

"The people that know better, that do it. Like people coming in from town that know better, and they'll come out here, try to sneak some fish out. 'Cause when that happens, it brings Fish and Game, County, and State down on the locals...It makes me mad."

Another local fisherman shares a story of coming upon a group of non-local fishermen using bait:

"[This] was about four, five years ago, when the fishing really took off again...we were getting off work at 4:00 and running down to the lagoon...it's lined up with Japanese guys and they're known for fishing with bait...you see the roe on the banks...Fucking roe fishermen! We hate fucking roe fishermen because you get the scent of roe in the river, and the guys fishing with artificial bait are kinda screwed 'cause now they're on the scent, they're looking for the eggs, well a lure goes by and they're like [oblivious]...We were pretty irritated by the fishermen, so we go to the gut of it [the hole]; we both throw in our little orange Cleo there, and...we got hits the same time; they haven't hooked a fish in hours; we're hootin' and hollerin,' long distance high fivin,' kinda like, 'screw you fucking bait fishermen,' cause you know, 'Can't fish the right way, don't fuckin' fish at all! Get the fuck off our river!'"

When asked to clarify his statement that "we fucking hate roe fishermen," he says, "We tolerate them. We don't make a big deal out of it." I asked, "Especially if they're local?" to which he responded:

"Yeah. We tolerate them. But these were a bunch of Japanese guys down there trying to make a slam. We said 'fuck you, screw you,' all fishing conduct went out the door. And we showed them why. And they didn't say two words to us...We had the last word, we like to think. But I'm not going to let their fishing practices ruin my day...But if I see them hit one over the head, then they got trouble. They aren't leaving the valley with that fish."

Another account of people coming from outside the valley was given by a third steelhead fisherman. He reflected on having reported non-locals taking fish by calling the CALTip hotline. He described these individuals as “unfriendly guys from Montana or Wyoming using roe.”

The taking of summer steelhead is of particular concern. Summer steelhead are taken by individuals who know it is illegal and do so anyways. It is also done by those who are unfamiliar with, or simply unaware of, the fishing regulations on the Mattole River. Given the scarcity of summer steelhead as compared to their abundant winter-run counterparts, taking summer steelhead is of significantly more concern – among conservation-minded non-fishermen and fishermen alike. One older local expressed his perception about the taking of summer steelhead:

“I think one of the reasons why there’s so few summer steelhead is that people who really don’t know, they go out in the summertime, and there’s this nice, big, deep pool and they’re swimming and ‘hey! There’s this big fish down there, let’s go back and get our stuff and try to kill it and eat it!’ ... There’s a certain amount of ignorance that goes along with it.”

One local steelhead fisherman initially responded to the question about taking summer steelhead by simply saying, “shame on you! Turn that thing [recorder] off.” He then told me a detailed story about catching numerous summer steelhead at the end of April¹⁴, including a description of what their eggs looked like. An older, long-time

¹⁴ It is unclear if this happened in recent years. The interviewee described this as taking place “at the very end” of the fishing season, in “April.” However, since 1993, fishing on the Mattole River has been closed during the month of April. Thus it either occurred earlier (when taking a steelhead was allowed,) or more recently, in which case the description of the eggs would implicate him as a poacher. It is also plausible that this individual was making up or bending his story, possibly in part to see if I knew the fishing season regulations.

resident in the middle Mattole River area concurs that taking summer steelhead does in fact still happen. This displeases him, as does the taking of a Chinook or coho. This is in contrast to the occasional taking of a winter-run steelhead, which does not bother him.

A number of interviewees discussed poaching by those who don't know it is illegal to take fish from the Mattole River. In almost all cases, this was in reference to steelhead, not salmon. One person stated, "I think the people that are doing that (poaching) are not hungry, you know they're growers or they're tending someone else's grow scene and are either bored or just out for a swim or fishing, but if they knew (it was harmful,) they might not do it." A local steelhead fisherman offers a perspective more focused on other steelhead fishermen, "There are still fish killed, mostly steelhead during steelhead season, by people who are idiots and don't read the regs." He mentions others who are unaware that there even are regulations; in his mind, these people are "random and probably irrelevant."

Roughly twice as many people, however, discussed steelhead fishermen knowingly taking fish. Similar to the tone taken in regards to non-local people snagging fish, a particular amount of ire accompanied accounts of non-local steelhead fishermen taking home steelhead. Others, however, expressed a similar disdain for locals taking steelhead. Others still remained relatively unconcerned, such as one individual who shared that he was once given a Mattole steelhead as a gift. One local fisherman shared this personal report on the topic:

"I catch at least two or three tourists a year with their salmon, or not their salmon but their steelhead, tucked up in the brush. While they're down trying to catch a few more. They're catching and

releasing most of them. But I'd say probably half of them are taking at least one [fish] home during their whole vacation trip...It's obvious: you'll be walking down through the [river access] spot and you'll walk by their fish on accident, where they've got it tucked up close to their rig or wherever, and sometimes I'll mention it to them, but for the most part I don't say nothing or do nothing about it."

Another individual, who lives near a county park that sees heavy visitation during the steelhead fishing season, adds this perspective:

"I've seen fishermen do it right. Ninety percent of the fishermen in the park are great stewards...And then you have the other ten percent that just don't care whatsoever and you hear the jokes, 'I catch and release into my icebox.'...It's a really hard call, you just remind them, 'hey this is catch and release, and the ranger is out here; if we notice that you are taking fish, we call the ranger and we let them know.' It's not very patrolled, so I think people feel pretty safe taking what they want...Last fishing season I was talking to someone taking care of John's place and she had found fish that had been poached and cut on the river bar...And it does really anger me to a point where it's like, they're not out here year round, they don't know a lot about this area, and they're selfishly taking fish for their dinner; what are they thinking?! So it does make me upset when I know that people are poaching from the river...It's like, 'we'll come here and we'll do what we want in your river, and we're going to go home, and you can go with it.' So I don't like it; it does make me upset. But it is pretty rare; most of the fishermen we see out here are pretty respectful and don't take the fish."

Existing in a grey area that is not always clearly identified as poaching, a frequently voiced concern involves the perception that catch and release steelhead fishermen handling fish roughly results in fish mortality. It is important to acknowledge that while some people expressed this concern in regards to any and all catch and release fishing, others expressed their belief that there is a spectrum of catch and release fishing practices, only some of which may contribute to fish mortality. That said, there is a basis

of shared concern that at least some catch and release fishermen are harming steelhead.

This concern is shared by some catch and release fishermen and non-fishermen.

Interestingly, one fisherman who did not express this concern did make repeated references to “keeping the ones you can’t revive.” This lends credence to the belief that some fish that are caught are unable to be revived and released unharmed.

Two steelhead fly fishermen shared these thoughts about rough handling of fish during catch and release:

“I’m seeing something that, maybe I never noticed it before, or it’s now increasing: is people who use big plugs, with treble hooks, and they drag them behind a watercraft of some kind, and they’re like a vacuum cleaner through a hole. And not only will the fish find it irresistible, but they’ll bite it in such a way that it’s harder to release and harder on the fish. And they pretty much get every fish in a particular hole and drive them toward one end where they will just – ...by the time a drift boat or a little catarafter with a plug goes through a nice run with a hole, they will have hooked – and hard, you know, a tough hook up, it seems to me – every one! And so, I don’t like it.”

The other fisherman jumps into the conversation, saying, “There are some fishing methods on this river that are legal that are, um-” His friend interrupts: “It just seems like it’s a tough...” They have both become agitated and though in obvious agreement, their utterances of disappointment have become inarticulate. For clarification, I ask them, “How does that make you feel?” One of them replies vociferously:

“It pisses me off! Because it feels like they are almost snagging, which is totally illegal, you know that’s with a heavy weight and a big hook, that’s illegal. But you know it’s almost so dependable that you will catch a fish that it’s cheating in my mind. And it’s hard on the fish, and it just ruins the hole for everybody else who’s doing it in a lighter way...I don’t know, but the plugs are pretty gross! It’s like bait.”

The other fisherman jumps back in to agree, and to offer some added history and context to this particular fishing method:

“Yeah. There was a movement on this river about twenty-five years ago to eliminate fishing from a boat. You could use a boat to get from point A to B, but then you had to go on shore and fish. And one of the things that driftboats have allowed people to do is fish every pocket of water. If you’re walking, some places you can’t get to. Well the driftboats – on this river, there aren’t a lot of guides that fish this river, cause it’s difficult to get to and it’s always sort of iffy – but there are still a number of driftboats on the river, and driftboats have allowed people who are not very good fishermen to catch a lot of fish. Because they’ve developed this plug method where they simply put the plugs out in front of the boat as it’s going down [stream] and you just put your rod in a rod holder, and the guy who’s rowing the boat is actually fishing those rods by just where he’s positioning the boat. And everybody else is just sitting there, drinking beer or whatever, and able to hook fish in a very non-sporting kind of way. But people who do that, love to do that. I mean they love that method of fishing and it’s incredibly effective. But it does seem like it’s kind of hard on the fish. But this is happening on the Van Duzen, it’s happening on the Trinity, on Redwood Creek.”

A younger local fisherman, who says he “tries all techniques,” offers this:

“Maybe when you’ve spent a good fifteen, twenty minutes trying to revive one after you *gilled it* or something, and you just watch it float down the river and you’re going to feed the raccoons or something, I mean that’s groovy and all, but that’s going to make that species weak too, to have a dead floater coming down, easy prey, but maybe that’s the fish you should be allowed to keep and eat.”

The preceding excerpts, while selected for their direct explanations of poaching activities, doubtlessly contain much more. They hint at the myriad ways of perceiving and relating to one’s home watershed and its inhabitants, both fellow humans and fish. Inextricably tied up in accounts of poaching salmon and steelhead in the Mattole River

are notions of God-given rights, freedom, tradition, food security, and entitlement. Tension regarding outsiders, as well as contested claims of fish abundance, are also glaringly apparent. Poaching Mattole salmon and steelhead thus does not occur in isolation; rather it is embedded in a complex cultural milieu. Understanding these actions requires that we cut to the core of who we are as local inhabitants. It requires that we open ourselves up, to see what comes spilling out of our own bellies and hearts.

Field Notes, January 29th, 2012.

Along a tributary near Ettersburg.

My co-worker and I are clambering down the bank towards the rushing water when we hear a two-stroke engine approaching. A young man on a motorcycle zips along the old road on the opposite side of the creek, and just a couple minutes later, zips back out the other way.

Perhaps unrelated, shortly after we begin wading upstream for our survey we come across an empty plastic container of fishing bait, roe "Product of Alaska." A white plastic bag is also left there as trash on the riverbank.

Into the Center of the Watershed: another weekend in January of 2012.

Joyously, we launch the canoe for the always-charming Ettersburg to Honeydew, two day spawner survey! For this year's good timing – of the rains and the river, the fish and our ability to be here – we are grateful. Steelhead and Chinook dart upstream beneath the boat: one here, three there. In a shallow area, a crease in the water – a wake rolling along the surface – presages the body of a fish. In deeper places they lurk too far down for positive identification, and so we slip underwater with them, eye to eye. Where females have dug nests in the riverbed gravels, we pause to assess how recently the redds were made, and the species of fish responsible. Standing in the water to measure the redd's lengths, widths and depths, we obsessively remind each other: “don't step too close, there!” In the interstices between the stones, soft, round, coral-colored eggs will soon develop eyes.

Floating down the river past riparian alder thickets rustling in the winter air, we scan primarily for three things: live fish, carcasses, and redds. The location of a newly fallen Douglas-fir tree, beginning to scour out a shady pool in the river, enters the mind secondarily. Fresh bear tracks of a mother and her cub cross a sandy bank.

We end the workday in the onset of darkness just upstream of Sholes Creek, setting up camp above the last two redds we measure. We make a riverbank fire and watch the nearly full moon rise above a steep forested slope. Orion stretches out along the ridge: eventually he climbs from his slumber to stalk across the sky. We roast sausages

on alder sticks above the fire, and read about Raven's meeting with the first humans of Haida Gwaii, born of the clamshell and then the chiton.

After Orion has crossed the sky and begun to depart in the west, I go over to check the canoe. When I flip it over and dump the water out, a great splashing commences in the river: fish either spawning or defending their redds. We flash our headlamps on and they are two salmon, one quite large, and they come near to us. Then race away, splashing and torpedoing down through the shallow riffle. We decide to stay awake a while longer. Later, Nathan walks along the shore and one of the fish spooks within about a foot of him. She erupts into the water, splashing away. We laugh at this magical gift: a winter river camp shared with spawning salmon.

Next day we launch the canoe shortly after sunrise. The morning is cold in the shady river canyon. We spot two carcasses of small Chinook jacks, tangled in the limbs of a submerged tree. We fish them out, carry them onto the sandy bank, and quickly use a thick, sharp knife to scrape off scale samples. With a split-second's pause to center myself, I tighten my grip on the knife and then saw directly into the bony forehead of the fish, opening up the cavity holding its brain. With tweezers I remove the two ear bones. They resemble tiny porcelain blades, each set unique. Along with the scales, these can be read like the story of the individual fish's life: at what age did he begin his salty ocean journey; how long did he linger in the brackish estuary?

Today there are not so many fish that we could walk across the river on their backs – a dim memory still alive in the minds of the very oldest Mattole Valley residents. The fish we meet are the ghosts of those runs. Yet their flesh is real.

We find an immense skin bag, turned nearly inside-out down to the tail, set atop a large boulder in the middle of the swift river channel. I unroll it and measure it from the fork of the tail to the skin that once covered the top of its head: 97 centimeters long, a huge Chinook. I spread it, scales side up, across the rock before we leave, imagining how it might dry in the sun on the smooth rock and affix itself, changing into salmon-rock. An otter swims in front of us, whiskered head above the surface; he submerges and glides past the boat in the clear waters. He will probably return to that salmon-rock, and what will he think of it, now?

The time it takes us to collect the day's data eats into our downstream progress, and we must get to Honeydew before dark. We paddle hard and fast. A flurry of heavy snowflakes swirls down into the river canyon. They change into sharp needles of sleet colliding with our cheeks, but as the wind and clouds sail off in another direction, the sun once again shines out. The world glitters with crisp beauty and we are floating through it, not separate.

On Pringle Ridge in the late afternoon sun, one redwood's shadow is draped against the grassy slope, creating a perfect huge shadow-tree. A golden eagle lifts off of a tattered fish carcass at the water's edge. A great blue heron squawks and flies at dusk.

The redwoods and firs begin to cast moonshadows. A startled fish swooshes in the darkness to avoid our paddles. I squint into the riffles and shadowed areas for rocks to avoid with the boat. In quiet places the mind mirrors the calm water. In others, the sound of the river fills the night. At the Honeydew Slide, every space in the mind becomes occupied by the myriad forces of powerful water rushing under bright moonlight. A

wildly beautiful experience, paddling with one's sweetheart on the beloved Mattole River on a moonlit night: no one around but king salmon, steelhead, herons, and bears.

ANALYSIS

Individuals' perceptions concerning the viability of local salmonid populations and the ways people interact directly with the fish are highly influenced by the individuals' respective socio-cultural experiences and communities. The Mattole Valley, like many places, harbors a unique assemblage of cultures, which are not mutually exclusive but rather which overlap in a myriad of shades of grey. What is more interesting than the differences between them are their similarities and points of commonality. Whether a person is a fifth-generation Mattole Valley resident who grew up eating salmon out of the river, a steelhead fisherman who fell in love with the place years ago, or the son or daughter of an ecological restorationist who was raised with a concern for dwindling salmon runs, all agree that more salmon in the river would be positive.

Codes of behavior across some of the cultures do not align, however. With respect to the salmon, one culture says, "this is your tradition: when the salmon run comes in, you go and get one: this is what men here do." Others are appalled, for their culture tells them that the few salmon now returning to the river must be left to reproduce if there is any hope for Mattole salmon in the future. There is also another prevalent cultural element to life in the Mattole Valley. The "live and let live" culture empowers you to answer to no one. Fiercely independent, this mentality shrugs off laws, societal expectations and judgments, and exerts a potent implicit challenge to any who would attempt to interfere.

Mattole Valley residents' perceptions – what they physically perceive via their five bodily senses – are thus negotiated on a gross scale through these various socio-cultural lenses. Four people interviewed during the course of this research may hypothetically visually perceive the same king salmon. Before their eyes is a live, silvery animal moving through the water; there is an essential unity to each person's resulting initial pulse of excitement. Freeman House described it well: "the basic bone-felt nature of this encounter never changes" (1999, p.13). Yet each person draws upon his or her own set of social experiences to construct their understanding of that salmon. One sees the fish that "will always run the river," which his people have for five generations harvested in the early winter and which his cultural tradition instructs him likewise to do. Another sees a rare survivor of a run of salmon decimated by human impacts, which her culture tells her must be left in the river to make it to its spawning grounds. A third individual sees the salmon as a tasty piece of meat and doesn't give a damn about what anyone else thinks; acting on his own highly personalized code of ethics, he takes it and cooks it up. A fourth person sees a fish that his people have, since time immemorial, harvested and smoked along with lamprey eels on occasions when elders gathered and shared stories; he wants dearly to keep one fish but acknowledges that they must be taken properly, shouldn't be overfished, and that salmon management is a good thing.

Thus while all four people visually perceive the same fish, what each person has internalized over the course of their lifetime – their personal experience and family history, word of mouth in their respective communities, their faith and their basic understanding of how the world works – colors how they understand that fish. More

importantly and at times unfortunately, the same cultural mechanisms are at work with regard to how people view one another.

That perceptions are sieved through various socio-cultural perspectives is highly evident in the ways some people in the Mattole Valley justify their poaching or poaching by others. Neutralization strategies that occur prominently among poachers of Mattole River salmon include the Condemnation of the Condemners, the Denial of the Necessity of the Law, the Claim of Entitlement, and the Metaphor of the Ledger (Eliason, 2003). To a lesser extent, the Denial of Injury, the Denial of the Victim and the Appeal to Higher Loyalties (Eliason, 2003) are also evident.

The Condemnation of the Condemners played a part in every admission of poaching Mattole River salmon. The most frequent condemner being lambasted was the local nonprofit Mattole Salmon Group, though the California Department of Fish and Game also was a frequent object of this neutralization technique. Intensity of condemnation varied from extreme contempt to mild skepticism.

In each case where it occurred, the condemnation of the Mattole Salmon Group consisted of disbelief in their “counts” or “numbers” of fish. Since the scarcity of fish is the basis for a conservation and anti-poaching stance, poachers reasoned that if the counts are inaccurately low then that basis evaporates, and they are justified in taking fish that are more abundant than the MSG claims. Some salmon poachers stated a belief that the Mattole Salmon Group is knowingly under-counting fish; explanations for this ranged from the group’s desire to maintain grant funds based on low fish counts, to their simply being incompetent, as well as the statement that the task of counting adult fish in the river

is plainly impossible. In nearly all cases, the condemnation of the MSG was typified by a misunderstanding or mischaracterization of their efforts, particularly their various endeavors¹⁵ to count fish. One of the most frequent misunderstandings of the group's "counts" was that their reporting of an observed number of fish constituted a population estimate.

Not surprisingly given the culture of independence in the area, the Denial of the Necessity of the Law was another neutralization technique employed by poachers. However, rarely did these take the form of contempt for *all* law; rather poachers wanted a redistribution of fishing regulations – specifically more regulation offshore, and less in freshwater. In one case, an individual protested the ban on bait. More prevalent, however, were observations that given the relative levels of salmon harvest offshore versus in-river, the laws regarding freshwater fishing are unnecessary. In their minds, the real need is for vastly increased limitation of the offshore commercial fishing industry; by comparison, their taking fish from the river is (in their minds) negligible and thus excusable. It is noteworthy that this complaint about offshore commercial salmon harvest, while serving to justify poaching by some, is a shared concern by many in the salmon restoration movement.

Entailing significantly less (though notably, some) potential for understanding among salmon restorationists was the use of the Claim of Entitlement as a neutralization technique by poachers. One individual made a somewhat wistful statement, harkening

¹⁵ The MSG "counts" fish in a number of ways, including an annual summer steelhead dive, winter spawning ground surveys, downstream migrant trapping, and diver observations of juveniles both in the estuary and the headwaters. It is notable that of these various "counts," only the downstream migrant trapping has produced population estimates by species.

back to “when I was a kid, it was like your God-given right to go down and catch salmon and steelhead both, and keep them.” Interestingly, this individual spoke of that basic God-given right in the past tense, as though it was something he was raised with as a kid, but is less certain about today. He followed that statement with, “Now, if it’s as bad as the numbers I’ve heard, then maybe every little bit counts,” though he then added that if the numbers *are* that bad, he is not sure if people acting on this God-given right is the deciding factor as to whether or not the fish will “make it.” While the previous individual did not specify whether this God-given right was given only to locals, another individual spoke of certain locals who grew up taking fish being entitled to do so, saying it is “their heritage.” One admitted poacher clearly stated that taking salmon is his family tradition. Thus this individual’s entitlement flows from his specific socio-cultural background and family history of early white settlers in the Mattole Valley.

The notion of heritage and certain locals having special entitlements merits attention. On the one hand, society in the Mattole River watershed demands a level of deference to local tradition, and barring someone’s family pastime does not fit comfortably within the ‘live and let live’ culture. Indeed one younger individual involved in the salmon restoration movement rhetorically questioned what right certain people in the Mattole Salmon Group have to tell people “who grew up here not to take fish.” Another younger person granted that “it may be their right, but” pointed out that the current Chinook salmon population is not a sustainable population to take fish from. This is in line with the perspectives of three older steelhead fishermen who spoke of rights in

close conjunction with responsibilities. One of these men, who is also professionally involved in salmon restoration, stated,

“To say it’s your right when it’s overexploited...and you’re complicit...you’ve got some karma problems...It’s a right, but we have responsibility as stewards.”

While the tones of these comments may suggest that some among the younger generation may take a less accusational approach than their predecessors in salmon restoration, one younger salmon restorationist did state, “part of me thinks you should be able to walk up to people [poaching] and punch them in the face...because it’s unsustainable harvesting.”

Others identified what is an inherently problematic, basic question: what is a local person; how long must one live in the Mattole Valley to be “local?” Another complicating issue that was raised in the context of some (entitled) locals taking fish was the inability “to know if they’re taking one fish or twenty.” While this relates to the basic claim (made by some local fishermen and poachers) that locals have adjusted their harvests down so as to not abuse the fish populations, it highlights a basic issue at hand: disagreement over local fish populations and their ability (or inability) to sustain some level of harvest. A related issue is the difficulty of allowing certain people to take fish while others cannot. Addressing the fundamental issue of entitlement is essential to any meaningful response to poaching in the Mattole River.

Entitlement is a tricky beast often largely based on local identity, though in some cases further buttressed by good deeds. The Metaphor of the Ledger, in which an individual states that all of his or her good deeds counteract their poaching behavior, arose twice in the course of interviews. One individual’s ledger statement was that he had

been helping fish in the Mattole River since he was a kid; he also said that “for what we put back into it,” other locals are also justified in taking an occasional fish. Another individual made a very interesting statement about his personal ledger: “I help put in salmon structures; I’m entitled to have one fish, or two.” This raises the question: how many salmon structures must one help build, in order to justify taking a salmon? By this logic, there are many local residents and salmon restorationists whose good deeds have earned them a few salmon. But who is to be the arbiter of appropriate good deed completion? And more importantly, how would all of these do-gooders’ new entitlements to take salmon intersect with the ability of the runs to support that level of harvest?

To a lesser extent than the above neutralization strategies, the Denial of Injury, the Denial of the Victim, and the Appeal to Higher Loyalties also arose. Two individuals expressed the basic belief that their poaching does not hurt the fish populations, an example of the basic denial of injury (“no one was hurt”). These were both individuals who declined to provide any distinction between the three fish species’ ability to persist in the future, instead making statements about “all fish,” and how “there will always be fish in the river.” One of these same individuals was the only participant in the research who used the Denial of the Victim to justify his poaching. In line with the argument that ‘the victim had it coming,’ this individual expressed a belief that the “dumb” fish that bites the bait should be removed so as to not breed. The Appeal to Higher Loyalties was

not used as justification directly by any poachers in reference to fish¹⁶, though one research participant stated knowing a local poacher who has told him that he “doesn’t even like to eat salmon” himself, but that he only catches them for his wife.

Neutralization theory suggests that these techniques for justifying illegal behavior are not simply employed after the fact, but also serve as significant motivations before committing a crime. Certain statements made by participants in the present research support this idea. It is thus in the interest of those trying to minimize harmful poaching in the Mattole River to understand the neutralization techniques used by local poachers because these strategies may relate not only to how people excuse themselves, but to their motivations to poach. Given this, the extent to which any of these neutralization techniques contain merit or are acceptable is of little import. Indeed, when viewed as justifications, very few of them hold water. Understanding poachers’ motivations and basic interests, however, could reveal common ground among poachers and salmon restorationists, who generally and somewhat incorrectly think of one another as at odds.

In reality, a multitude of factors influence local responses to Mattole River salmon and steelhead poaching. With striking similarity to the findings of Hampshire et al. (2004) in Lithuanian fishing villages, there exists among residents in the Mattole Valley a multidimensional spectrum of acceptability with regard to fish poaching. As in Lithuania’s Nemunas Delta, the intertwining dimensions of acceptability include perceived threat to fish runs, aesthetics and fairness of fishing methods, need versus

¹⁶ One individual did share a heartfelt story of poaching abalone out of season in order to satisfy his dying father’s last request. While not directly involving salmon or steelhead, this was a clear example of an appeal to higher loyalties.

greed, and identity of the poacher. While in Lithuania these various dimensions appear to have been comparably weighted, the perceived threat to fish runs in the Mattole River carries substantially more weight among local residents than other concerns.

Nearly all of the people interviewed in the Mattole Valley, including some from all socio-cultural backgrounds, agree that it is not acceptable to poach coho salmon. Similar feelings exist concerning summer steelhead and Chinook salmon. Though much is unclear about summer steelhead, there is a general consensus that the threat posed to the coho salmon run by poachers is least acceptable; many felt the same about summer steelhead, and many were highly uncomfortable with the discussion of Chinook salmon being poached. These three runs of fish (coho salmon, Chinook salmon, and summer steelhead) are widely perceived to be far less abundant than winter-run steelhead¹⁷. Though some individuals were stalwartly opposed to the poaching of steelhead, many expressed that this troubles them significantly less than the poaching of salmon – if it troubles them at all.

Being a multidimensional spectrum, however, the level of acceptance of people poaching salmon had, for some, everything to do with those poachers' identities. The relative weighting of the factors (for example, threat to fish runs versus poacher identity) appears to be influenced by socio-cultural factors. Invoking local heritage, some accept salmon being poached *as long as* they are poached by “local” people. The same basic issue of poacher identity arose with regard to steelhead: greater acceptance of “local”

¹⁷ Throughout this paper, “steelhead” refers to winter-run steelhead.

steelhead fishermen poaching steelhead was evident, as compared to fishermen coming from outside the valley and taking steelhead.

In most of these latter cases, however, another key interwoven factor was greed: if “local” people poach one or two fish per year, and are not greedily taking any more, then that is accepted by some. It is far more acceptable if the fish taken are steelhead, but for some individuals who were interviewed, as long as “locals” are taking only one or two per year, it is not objectionable if they take salmon. A prime example here is the statement by an older salmon restorationist in regards to one longtime Mattole Valley resident poaching salmon: “[He] is almost grandfathered in, and I don’t think he takes very many fish.” It must be made clear that this is not the majority opinion; the majority of people interviewed strongly condemned the taking of any salmon by any poacher, local or not. But among those who expressed some approval or lack of concern for salmon being taken, this was nearly always qualified by the dual requirements that those salmon are taken by “locals” who are not “getting greedy.”

Aesthetics and fairness of fishing methods was less a factor to the people of the Mattole Valley than residents of the Nemunas Delta in Lithuania, likely because the latter is chiefly comprised of fishing villages where fishing is both a primary industry and point of pride. Contrastingly, far fewer residents fish in the Mattole Valley today, and essentially none fish for their livelihood in the river. Nonetheless, three individuals were interviewed who spoke of certain fishing methods being more or less acceptable to them. In one case, an individual who admits to poaching salmon conveyed a partiality for what he called “natural” predation: fishing methods which give humans little or no competitive

edge over the fish. This individual clearly prides himself on his bare-handed pursuit of salmon. The other two individuals were steelhead fly fishermen who voiced clear objections to poaching Mattole River salmon. Their comments on aesthetics and fairness of fishing methods pertained to catch and release fishing, and they conveyed the highest esteem for fly fishing without indicators¹⁸. One of these two individuals explained that “pulling plugs¹⁹” is “almost [as bad as using] bait,” describing how “it’s almost so dependable that you will catch a fish that it’s cheating in my mind.”

All of these components of the spectrum – perceived threat to fish runs, identity, greed, aesthetics and fairness of fishing methods – interact differently for each individual. There are undeniably some participants in this study for whom the only element that matters is perceived threat to fish runs: no degree of local identity, need, and aesthetically approvable fishing method will compensate for the taking of a coho or Chinook salmon, for example. (However, even in this case, a calculation of need versus greed would come into play when gauging acceptance: the more salmon a poacher takes, the less acceptable it would be to even the most stalwart salmon protector.) For at least some individuals, the calculation of acceptability of poaching *does* involve additional interwoven elements: threat to fish runs, poacher identity, and greed; for some, even aesthetics and fairness of

¹⁸ Used in fly fishing, an indicator – also referred to as a strike indicator – is a foam plastic float or a small inline float or a piece of wool yarn that is attached to the leader or the end of the fly-line. It provides a visual indication that the nymph (a trout-fishing fly designed to be fished underwater) has been taken by a fish.

¹⁹ Pulling plugs is a fishing technique in which certain lures (plugs) that are designed to dive are let out downstream of a boat, which is often held steady against the current of the river. Once the plugs get let out far enough from the boat, they dive towards the bottom, at which point the boat is allowed to drift downstream and the plugs are allowed to wiggle along, often into a desired hole in which the fisherman seeks a steelhead.

fishing methods figure in. Operative understandings of these elements – acceptable threats to fish runs, local identity, and what constitutes need versus greed, fairness, and aesthetics – are largely socially constructed and, thus, vary to some extent from individual to individual.

Many whom I interviewed expressed hopes that this research would lead not only to a deeper understanding of poaching and how various people feel about it, but to some kind of resolution (even albeit partial) to this angst-filled topic. Among those interviewed are also some who, while they may not believe that poaching salmon in the Mattole River is a particular problem, are deeply troubled by certain aspects of the local salmon restoration effort. While it would be naïve to think that rapid changes in peoples' values and belief systems are likely, it would be defeatist to think that an evolving civil society or individual experiences may not hold any power to influence those values and beliefs (Shutkin, 2000).

Wildlife law enforcement is not succeeding in the Mattole Valley. Threatened runs of Chinook and coho salmon are not sufficiently protected from poachers. There is a general agreement among the majority of those interviewed that enforcement is lacking, and there is evidence that when it exists, it is focused not on catching poachers of threatened salmon but rather on violations such as terminal gear infractions by steelhead fishermen, the taking of steelhead, or deer hunting out of season. Given the unlikelihood of the California Department of Fish and Game increasing their enforcement during the current economic slump, alternative mechanisms for addressing the poaching of threatened native salmon and steelhead must be sought. The inability of state wildlife law

enforcement to prevent the poaching of threatened Mattole salmon can be viewed, in a certain respect, as a blessing in disguise: given that people are more responsive to the sanctions of a close, personally relevant group of people than the criminal justice system, the failure of the state²⁰ leaves a void to be filled by what could ultimately be a more effective response from local communities.

The long history of socially inspired ecological restoration in the Mattole Valley is cause for optimism. In addition, powerful alliances have formed before in the Mattole Valley among the most unlikely of stakeholders. Civil society in the Mattole Valley has, in recent decades, been motivated and mobilized into self-organization. The Mattole Watershed Alliance, which formed first as a coalition of diverse local residents concerned about fishing impacts on the local salmon runs, achieved remarkable progress both in securing changes to the fishing regulations and more importantly, in providing a space for people from different backgrounds and land management paradigms to hear one another. Unfortunately, when it tackled more sensitive issues (namely, timber harvest rules applicable to private land,) it was – perhaps inevitably – unable to stand the test of time.

The prevalent “live and let live” culture in the Mattole Valley constitutes a significant challenge to the development of civic responses to concerns such as salmon

²⁰ It should be acknowledged that in addition to the California Department of Fish and Game, the United States Fish and Wildlife Service, as well as the National Marine Fisheries Service, have the mandate and legal responsibility to effectively manage and recover threatened and endangered salmonids in the Mattole. While I believe that in this case, the local community may be more capable of sustainably addressing issues such as poaching over the long term, such a belief is NOT meant to suggest the abdication of any state or federal agency’s public trust responsibilities to restore the listed salmonids. Moreover, where certain individuals are unreachable through civic discouragement to cease poaching salmon, criminal justice responses from the responsible agency/agencies are probably warranted.

poaching. Despite being widespread, concerns about salmon being poached are difficult to translate into broad-based action due to the common valuation of personal freedoms.

On the other hand, nearly all Mattole Valley residents love the local salmon, which benefit (in terms of their ability to bring people together for conservation) from not being a privately-held resource such as timber. Building a strong coalition to mobilize support for their protection is first and foremost a matter of improved communication so that more people believe that their protection is needed. Communication will not succeed if people are not open to it; indeed this is not communication at all.

Certain degrees of willful ignorance and skepticism of others' perspectives were evident during the course of this research. While some poachers and local fishermen certainly do know the difference between a coho salmon and a Chinook salmon, others do not, and some among this latter subset show little to no interest or desire to learn. Similarly, while some salmon restorationists are open to the experiences of fishermen, others spoke sarcastically about what they are seeing in terms of salmon in the river. These attitudes are equally corrosive, both serving to entrench counter-productive positions. Addressing them requires that sincere efforts be made to overlap individual spheres of experience.

Parallels can be recognized between the insecure and thus intolerant racial groups discussed by Roscoe (1985) and both salmon restorationists and salmon poachers in the Mattole River watershed today. While the contemporary scenario is far less grave in human terms, the current insecurity of both some restorationists and some poachers likely contributes to mutual intolerance.

After significant state and federal investments during the 1990s and early 2000s, funding for watershed restoration in the Mattole River watershed is rapidly and drastically decreasing. Much has been accomplished yet the need for continued restoration remains, particularly directed at preventing the extirpation of Mattole River coho salmon. During this insecure time abounding with uncertainty of how to fund the continuing needs, salmon restorationists' tolerance towards perceived threats (e.g. people taking salmon) is low. In addition, some salmon restorationists' very identities are intertwined with the salmon. Having dedicated their life's work (much of it unpaid) to "saving the salmon," some personally identify themselves with the fish. Who would salmon restorationists be without salmon? This personal identification with the salmon, as well as the now-apparent closing of the curtain on the externally funded restoration efforts of recent decades, juxtaposed with the highly uncertain future existence of Mattole River coho, constitute sources of insecurity. This does not engender tolerance for salmon poachers.

By the same token, some poachers experience various sources of insecurity likely nudging them towards intolerance of restorationists. A most obvious source of insecurity is the decline in apparent numbers of salmon available to poach, as compared to generations prior. It also appears that the old guard salmon poachers are, as a few interviewees related, "dying out." Relatively alone in their world, their insecurity feeds into an intolerance of those who threaten the dominance of their culture, namely the

salmon restoration community²¹. The primary tangible threat to poachers' actual activity is, of course, not the local salmon restorationists but rather DFG law enforcement officers. Given, however, that the latter are largely outside of the realm of local relevance, expressions of intolerance fall on that which is locally relevant: the salmon restoration community, which is turning the tide of local public opinion. The social successes of the watershed restoration movement have gradually influenced local value systems among many. Poaching salmon is not a popular activity that is well-received in the community.

Yet being well-received in the community is of little import to some who may engage in poaching as a symbolic act of freedom or rebellion, or to establish their identities as locals. Whereas harvesting salmon from the river was a widespread activity among many lower Mattole Valley residents forty years ago, today it is more of a subculture endeavor. Within some segments of contemporary Mattole Valley society there is an often unspoken esteem for certain subculture activities. The prevalent "live and let live" mentality is such that even if an action is not well-received, it is unlikely to be met with appreciable opposition or active intolerance.

²¹ The relational resemblance of contemporary salmon poachers and restorationists to the indigenous Mattole and the early white settlers, respectively, goes further. As Roscoe (1985) noted, once the majority of indigenous Mattole people had been killed or driven off, white settlers' attitudes towards the few indigenous survivors in the valley shifted towards increasing tolerance. This basic progression of intolerance, reduction, and unthreatened acceptance is evident in some restorationists' evolving attitudes towards old-guard salmon poachers. Recognizing that they are dying out, some of these last men may now be "grandfathered in," evoking no major intolerance among some restorationists. Because of the diversity of views among both restorationists and poachers, generalizations are impractical. While exceptions certainly exist, the insecurities among some restorationists (who as a whole have not succeeded in saving the coho) and some poachers (who as a whole have not succeeded in defending their actions) may be contributing to mutual intolerance.

An ultimately more influential form of intolerance exists, however. Some poachers and local fishermen expressed discontent with the restoration organizations bringing “outside influences” into the Mattole Valley. A distinct distrust of government (and that which any government agency would fund) combined with an unwanted intrusion of non-local people and their ideas and interests (i.e. young people entering the valley to pursue restoration ecology) results in disgruntlement and intolerance of restorationists among some local residents.

Insecurity leads to intolerance, which thwarts resolution. Yet, the irony of the fundamental interests of both salmon restorationists and salmon poachers is that they are one and the same: everyone wants more salmon in the river. In fact, nearly everyone wants enough salmon returning so as to enable harvests. The fundamental disagreement is where local salmon populations currently stand with regard to that latter desire.

A primary challenge for the Mattole Salmon Group is to better understand and communicate its findings concerning the population statuses of the three species of native salmonids to local residents. This is necessary to provide the basis of an informed civic response to poaching, as well as to directly engage with poachers. Increased efforts must be made to effectively communicate with local residents who are offended by technical reports and scientific terminology. The Mattole Salmon Group would be wise to be prepared to attempt communications with local residents who may be unable to read, as well as those who believe that dredging the river to remove sediment, shooting sea lions, and introducing hatchery fish are among the most effective and desired ways to restore Mattole River fish populations.

In addition, it is imperative that people in the Mattole Valley open themselves to the possibility that despite speaking in different terminologies, some people involved may be closer aligned than is often thought. This became clear during one interview that turned into a late night conversation. Early on, the interviewee spoke passionately about how “fish hatcheries are the mainstay of increasing the populations of all the species of fish,” and the need for “professional” fish hatcheries on the Mattole River. When asked for my opinion I had politely disagreed, stating my belief that one of the main problems with hatcheries is their frequent introduction of fish beyond their native streams. Much later, another individual who had joined the conversation spoke passionately about the old Horse Linto Creek hatchery as “the most successful wild fish hatchery.” The interviewee then asked, “what about Orick?” The latecomer then recalled that unlike the vast majority of hatcheries built as mitigation for the dams, the operation in Orick had been, in fact, “another good, old school hatchery” producing fish natal to its home stream, Redwood Creek. The three of us all then realized that we are essentially equally opposed to the same kinds of large-scale hatchery operations, and likewise equally in favor of protecting native fish in their natal stream. The interviewee patiently explained, “To me, old school and small scale is the same thing.” He then continued:

“You know what, he’s college-educated, I’m not...I don’t talk the same language he does, but I do talk the same: words. But not the same language. Meaning the same thing. And I get shut down every time I turn around...I try to explain it in the best, educated [way I can]...[We’ve got] extremists on one side, extremists on the other side; there’s no meetin’ in the middle: bottom line.”

The other individual explains why, in his mind, this is the case in the Mattole Valley:

“Because everybody’s eccentric.” This may be true. Nonetheless, the only way to truly discover what one may have in common with another person is to take the time to get to know them and comprehend what they are expressing, albeit in a different set of words.

As one person involved in a collaborative partnership reflected,

“Bring all members along. If because of their background, education, or training, someone doesn’t understand, then you have to take the time to sit them down and explain it to them. Go sit down and drink some coffee with them and explain things”
(Wondolleck & Yaffee, 2000, p. 134).

It is crucial to apply this statement in both directions. While cursorily, it suggests that the person with less education or training may need to be “sat down and explained to,” the previous vignette from the Mattole Valley research hopefully demonstrates that at times, the process must proceed in the opposite direction. This necessitates patience on the part of all who are seeking to communicate effectively.

Trust is currently lacking, and without trust, certain locals who poach salmon are not going to make themselves available for communication, regardless of how well it speaks to them. In light of this, the Mattole Salmon Group and individuals in the wider salmon restoration community must make increased efforts to meet these local residents on their turf, and begin to open the doors of communication by listening in good faith to their perspectives. By meeting face to face, individuals can begin to break down the isolation that stokes negative beliefs about others.

These face to face interactions require a fundamental willingness and effort on the part of individuals and need not necessarily adhere to any structured process. However,

various conflict resolution processes involving techniques such as listening circles, joint fact-finding, and collective visioning have shown promise in multiple types of environmental conflicts (Lewicki et al., 2003; Most, 2006; Ball, Caldwell, & Pranis, 2010). Certain residents in the Mattole Valley may possess little interest in structured conflict resolution processes, however. In these cases, informal relationship building may prove to be more effective. Throughout both informal and structured interactions, there may realistically be some individuals who fail to be their best selves or who possess little interest in participating. These people need not distract the collaborative effort, nor lead to false conclusions that all poachers are the same, and all salmon restorationists are the same. Those who fail to rise to the challenge of better communication and engagement will be in the ever-shrinking minority, and subject to the judgment of their peers.

Building on the trust that is developed only by listening to others, a re-invigoration of local involvement in salmon restoration and monitoring is clearly necessary. Folding in the experiences of fishermen is essential, as is folding in the experiences of those who claim that salmon are abundant in the Mattole River. In a best case scenario, the claims of these latter individuals can be collectively discovered to be accurate, and perhaps everyone might agree to celebrate together over a local salmon dinner. More likely is the discovery that each party to the disagreement holds some amount of accurate information unknown to others. Undoubtedly catch and release fishermen and poachers possess knowledge unique to their life experiences. Increased efforts to involve local residents in spawning ground surveys could result in some of them reconsidering their understandings of salmon abundance. Wondolleck and Yaffee

(2000) discuss a case, involving the Oregon silverspot butterfly, where such joint fact-finding resulted in improved understanding of the population and its habitat.

There is also significant potential for productive collaboration by diverse members of Mattole Valley communities on larger issues of common concern affecting the salmon. Given shared concerns about offshore salmon harvest and lack of water in the river, local fishermen and salmon restorationists could work together on these wicked issues. While it might be Polly-Annish to suggest that a Mattole Valley coalition could influence offshore commercial fishing regulations, a handful of interviewees spoke of specific aspects of the fishing regulations that could be addressed. One of these individuals specified one particular aspect of California's offshore regulations:

“There's a big run of salmon off the mouth of the Mattole right now, and I know that the guys are...shaking fish. On trollers, it's a hook and line fishery, and on trollers when you bring a fish in, [you're] not allowed to keep coho, so you shake the fish: you take your gaff hook and you put a twist in the hook, and it cuts the fish loose, but they don't often live...sometimes they die, but you're not allowed to keep them, so that aspect is failing... The shakers...That component of the regulations I don't feel is working...That's what I'm hearing from the other trollers.”

Other individuals mentioned aspects of the freshwater fishing regulations that could be altered. By coming together to work on such issues out of a common desire for abundant fish populations, fishermen and restorationists could constitute a potent team. Indeed, the past experience of the Mattole Watershed Alliance, comprised of a diverse mix of fishermen, ranchers, and non-ranching environmentalists, proved effective in this very same endeavor in the early 1990s, when they successfully petitioned the Fish and Game Commission for changes to the Mattole River fishing regulations.

Attempting to eliminate all fish poaching from the Mattole River would be futile.

Further, the basic human drive to go out into the world, connect with a wild river, and harvest wild food from it is not a bad thing. This type of close interaction with one's home environment is probably essential to instilling a deep respect and stewardship ethic for "natural resources." Even more, direct personal connections with one's home place – its fog and ocean currents, tectonic jolts, and plants and animals – give rise to an understanding of what it is to be human in relation to other earthly forces and creatures. Making acquaintance through direct sensory perceptions of wild salmon not only clues us in to their nature, but tells us who we ourselves are.

It is only from such sensory experiences that we might hope to define the terms of relationship. And it is only from the maintenance of those experiences – going out every fall to welcome back the returning salmon – that we may gain the clarity of understanding how our relationships with them might need to evolve. For their sakes and our own, we must stay physically attuned to the wild things.

The Mattole Valley is a unique place where the freedom to have such experiences persists, and this is probably related to its also being the home of one of the West's first and most robust bioregionally minded, citizen-driven ecological restoration efforts. Harvesting wild fish is not going to end in the Mattole River and, for the above reasons, nor should it. But efforts to shift certain individual's consciousness and actions as regards the numbers and particular types of fish they currently poach are essential.

One individual succinctly expressed the tension between the need to protect the runs and a longstanding tradition of harvest:

“Managing salmon is a good thing. We²² should be allowed to take at least one, but not overfish it...At least one per year [we should be able to keep]. Probably a steelhead and one Chinook...Taking one wouldn't endanger the populations, not if done properly...It's just wrong [to not be able to keep one], but then again you've got to have proper management. ..There will always be those people who don't believe the data...I still think you should still be allowed to keep just one. It's been a tradition here in this tribe for as long as we've been existing, so.”

While unwavering on the right to take one fish, this person's statement contains additional key points. His mention of proper harvest and management reflects that some forms of harvest are more damaging than others. The likelihood of being able to end all poaching in the Mattole River being as slim as it is, this provides a departure point for discussing the ways in which poaching could do the least damage.

If future generations are going to have the slimmest chance of being as lucky as ours in occasionally glimpsing a wild river with three species of native salmonids, then current poachers (those who are not already) need to become intimately familiar with the various species and runs of Mattole salmonids, and convinced to immediately cease poaching coho salmon. This is a collective, community responsibility. Because of the ultimate impossibility of condoning some select individuals' harvest of Chinook salmon while simultaneously preventing others from taking Chinook, poaching this species should also be ceased. Until population assessments can establish whether or not Mattole Chinook salmon are above depensation level²³, the precautionary principle should apply, and no harvest should go uncriticized. If there are individuals that are unable to abstain

²² When asked who he meant by his use of the term “we,” this person stated: “Everybody.”

²³ When the number of individuals in a population falls below that population's depensation level, the trend towards extinction is likely to be irreversible. For Mattole coho salmon, the depensation level is 250 adults. The depensation level for Mattole Chinook salmon is 178.

from poaching Chinook salmon, the respectful taking of one male Chinook per year would be preferable over the loss of a female. Significant efforts in outreach, trust-building, communication and collaboration are in urgent need. Shared direct experiences are an essential first step.

CONCLUSION

Current local perceptions of the long term viability of Mattole salmonid populations vary. There is general agreement that Mattole River steelhead are the most viable in the long term. While many perceive Mattole River coho salmon to be on the verge of extinction and consider local Chinook salmon to be at some risk of extinction, a minority of local residents believe that Mattole River salmon are more abundant. There is some approval of salmon poaching by “local” residents, whereas the majority of people interviewed, including most catch and release fishermen, strongly condemned the poaching of salmon. Feelings concerning poaching of Mattole River salmon and steelhead are modulated by perceived threats to the various fish runs and by local identity, and to a lesser extent by perceived need versus greed on the part of the poacher.

The simultaneous occurrence of perceptions that Mattole salmon runs are small and not viable in the long term with feelings that, nonetheless, certain locals are entitled to continue taking salmon demonstrates the weight of local identity and entitlement.

Poaching is justified through the use of a few key neutralization techniques. The Condemnation of the Condemners is frequently used to attack the local nonprofit salmon restoration organization. The Claim of Entitlement is also in prevalent usage. Some residents also use the Metaphor of the Ledger to cite their good deeds for the salmon as earning them the right to poach. Those who Deny the Necessity of the Law reason that in comparison to offshore commercial harvests and other impacts, their taking of salmon from the river is insignificant. In addition to being used by all poachers to justify their

own behavior, the Condemnation of the Condemners and the Claim of Entitlement were frequently used by interviewees to justify poaching by others considered to be “locals.”

Perceptions of Mattole River salmonid viability are drawn to some extent from direct sensory perceptions, the interpretations of which are affected by socio-cultural influences. Perceptions of the ways people view direct human-salmon interactions in the Mattole River (e.g. poaching, catch and release fishing, and salmon restoration activities such as monitoring) are drawn largely from socio-cultural influences. Certain socio-cultural influences on beliefs about others constitute significant barriers to collaboration.

The lack of trust between poachers, catch and release fishermen, and salmon restorationists in the Mattole Valley is thwarting the potential for meaningful collaboration towards a key common desire: abundant salmon and steelhead runs that can support sustainable future harvest.

While the most sustainable, long-term solution – building trust between all poachers and salmon restorationists in order that they may work together towards the common goal – will likely prove to be more challenging, the potential for collaboration between restorationists, catch and release fishermen, and certain poachers who poach in moderation holds more immediate promise.

Additionally, a broadening of the call to reduce salmon poaching in the Mattole River needs to occur now. Each individual resident has a unique sphere of influence, and those who can sway salmon poachers should presently consider whether dearly held notions of “live and let live” and respect for personal freedoms are more valuable than

local children's abilities to continue witnessing and coexisting with wild salmon in the Mattole Valley.

Because of the power of sensory experience, increasing opportunities for diverse local residents to share direct perceptual experiences of local salmon and steelhead has potential. These joint fact-finding field excursions could serve as initial attempts to break down socio-cultural biases and open one another to each others' perspectives on local salmon viability. It is my hope that in so doing, vibrant civic engagement with the issue of salmon poaching will arise, and effective responses will be sparked.

It is also my hope that through improved trust and increased capacity for collaboration, a diverse citizen's alliance will coalesce in order to try to address not only the poaching of salmon but additional impediments to the recovery and future security of vibrant runs of native salmon and steelhead in the Mattole River. While externally funded watershed restoration may be sunsetting, the future of ecological restoration (as well as the interrelated economic and cultural work) must take the form of vigorous civic engagement on the part of local residents.

Venturing out into the watershed to perceive it together, and listening to one another face to face with direct eye contact, are powerful exercises. The latter is rooted in an often unspoken understanding of mutual respect: I will meet with you, and listen to what you say. If we acknowledge that we cannot accomplish our shared goals of restoring abundant wild salmon runs without engaged local residents, restorationists, agencies and society, then all parties must take this basic first step. We must listen to one another, and

listen together to the cyclic flows of watershed and ocean, and we must listen to what the salmon are telling us.

Stopping to Listen

Bridge Creek, tributary to the upper Mattole River. Mid-winter 2010-2011.

To return to our senses is to remember an older, indigenous faith that has never really been lost – our breathing body’s implicit faith in the solid ground underfoot and the renewal of light every dawn. Underneath all our abstractions there remains this simple, carnal faith in the mountains and the rivers and the cyclical return of the salmon, in the silent germination of seeds and in the unseen, imperturbable wind. It is this animal fidelity to the animate earth, so easily overlooked, that unites us with countless other species – and it remains the ground of every lasting ethic between persons, and between peoples. A faith in the wild and shadowed goodness of the Earth.

-David Abram, in *Why Ethics?*

It is hard to be silent walking upstream in chest waders through fast water. My survey partner and I weave in and out of the creek, ears tuned for the sound of another creature, also moving upstream. But its sound is entirely different. Adult salmon may thrash through shallow riffles surging and splashing, or dart into the deeper pools, nearly silent. Seeking their presence during winter spawner surveys therefore depends also on the eyes.

But it is dim in winter's late afternoon, and the streamside alder trees filter out much of what light is left in the day. I have weighted my consciousness more toward my ears – an ample amount of it necessarily remaining focused on balance as I push one leg and then the other upstream, feet negotiating uneven rocks at the bottom of the cold, rushing water. Suddenly from just behind me my name is whispered urgently. I turn to look, and my partner points just a few yards away, across the creek, at the humped spine of a massive fish which protrudes above the water's surface. We freeze in the shallows of the left bank, eyes wide.

The male king salmon is old and huge, and holding himself utterly still, half in the water and half above. His tired belly must be resting on the stones of the streambed, for he has no need even to move what remains of his once-thick muscle of a tail lazily side to side to keep himself there in the current. My comment escapes from me quietly under my breath, as quickly as it enters my mind: "Well he is just about on his last legs, now isn't he?"

Instantly then the salmon retreats from the edge of his silent, slow death and charges diagonally upstream through the water, sending up a rooster tail of water and an unfathomably loud version of that specific splashing sound we have been keyed in for. One of my hands intuitively reaches out and grips onto one of hers, and our wide eyes meet for a second. The salmon begins drifting languidly back downstream toward our ankles. He comes impossibly close. We could reach down and grab him now but he is so frighteningly large, and then, within inches of our ankles, he rolls his giant body

sideways in the shallow water and lifts one side of an ancient deformed head – hooknose – up out of the water, eye glaring at me.

That lashless eye burns into mine, and while I can never know what is running through his piscine, ocean-wise brain, I sense an indignant query: did you say something about my energy?

The fish plows off upstream through the water surprisingly fast and vibrantly splashing, and we are left standing there in the dim wet cold, feeling grateful, awestruck, and humbled.

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APPENDIX A

HARVEST

Hank²⁴ and I are eating king salmon for dinner in the lower Mattole Valley. It is a sunny evening on one of the last days in June of 2011, and the formal interview for my thesis research will take place after we eat the fish. Hank caught it just off the coast, not far from the mouth of the Mattole River – somewhere between Eel River Canyon and False Cape. While we eat the fresh flesh, we leave unspoken the question that hangs thick in the summer evening air: is this a threatened Mattole River Chinook, its harvest from the river forbidden by law? With no way of knowing, we tell ourselves it is not. Even though its adipose fin was not clipped – the frequent tell-tale sign of a hatchery-raised fish – we console ourselves with the knowledge that not all hatcheries in this region clip the fins of all the fish they raise. So the presence of that small fleshy fin behind the dorsal, while suggestive of untamed wildness, does not necessarily mean this is a wild fish we are eating. Plus, it's less likely to have been a Mattole salmon than an Eel River salmon, we agree. Or hell, it could even be a Sacramento River fish, caught on its eventual way down south. We avoid the idea that this totemic creature that he has reeled in from the sea and killed was born and reared in our little home river like the way we avoid the occasional thin, sharp bone in its nourishing flesh. But it is there. Prominently tucked beneath the surface is the issue of how many Mattole River Chinook salmon are harvested at sea by commercial and recreational fishing operations.

²⁴ All names have been changed.

Prior to white contact, indigenous communities across the Pacific Northwest developed sophisticated customs surrounding salmon harvest. These customs, occurring within the overarching framework of a “gift economy,” prevented frequent overexploitation (Lichatowich, 1999). This is not to say that excessive harvests never occurred in indigenous fisheries; the point to emphasize is that when they did occur, something more than an economic impact was felt. The gift the salmon had given of itself to the people commanded respect. Stories of wasteful harvests and severe resulting punishments from the fish served to maintain moderate harvest levels (Lichatowich, 1999).

Over the centuries, the continued development of fishing technology and, importantly, the rise of a vastly different type of economy and dominant culture – complete with hatcheries, synthetic nets, and factory ships – have contributed to salmon harvests steadily increasing. Attempting to offset increasing harvest levels with hatchery production only exacerbates the decline of native salmon. Considering the scale of harvests beginning around the turn of the 20th century and continuing through to the present, it defies logic to suggest that human harvests of salmon have not contributed significantly to their decline. In the relatively small Mattole River, by the 23rd of December, 1911, already two and a half tons of salmon had been harvested (see Appendix D). Though we have theoretically learned certain lessons from dumping such heaps of harvested salmon on the floors of overwhelmed canneries that workers had to shovel their rotting carcasses back into the river (McEvoy, 1990), the same logic applies

today. Harvesting wild salmon – while an increasingly rare occurrence – continues to reduce numbers of wild salmon. As Lackey et al. (2006) explicitly state, “Threatened or endangered salmon are the only listed animals for which governments routinely provide large numbers of licenses to kill” (p. 18).

One key shift that has taken place in the long history of salmon fishing is that whereas it was originally primarily an activity occurring in river systems when the salmon returned, today the predominant place of capture is at sea. Wild salmon make up a relatively small percentage of the overall catch – about 20% in Washington, Oregon, California and Idaho combined (Augerot, 2005). Offshore harvest renders salmon effectively anonymous: riverless, in a market-driven world. Catch levels in California are determined based on estimates of expected returns in the Sacramento and the Klamath Rivers. There are numerous problems with this method, but one of the salient ones for smaller river systems with threatened native runs is that these fish continue to get caught along with the hatchery fish from the larger rivers. At sea, salmon mingle.

It has been said that mixed-stock commercial ocean harvests, currently at all-time high levels, are the most obvious cause of the decline of wild salmon (Buchal, 2006). Indeed the negative predictions – dating back to the 1920s – by salmon managers, academics, and policy analysts concerning the consequences of increased ocean salmon harvest have all come about. These warnings included interstate and international conflict, ocean harvest of immature fish, and unsustainable fisheries in mixtures of strong and weak stocks (Lichatowich, 1999).

While some still today call for drastic reform of commercial ocean fisheries (Ashley, 2006; Does, 2006), there are many reasons why the problems of ocean fisheries evade solutions and spawn contested claims. These reasons include inadequate information, differing interpretations by scientists, and use of data for political ends (McDorman, 2000). Chief among the primary problems of ocean salmon fisheries management is the lack of political will to limit fisheries, as well as the difficulty and/or lack of enforcement (Allison, 2001). Even with policies banning high seas salmon harvest in place, inadequate enforcement on the high seas enables fishing vessels to violate international agreements. Inside Exclusive Economic Zones, ineffective treaties between neighboring nations fail to restrict harvests of salmon to the nation of their origin, enabling nations to which salmon migrate to over-exploit stocks that originate in other nations (Polychron, 2003). This occurs on international levels, but it also occurs, with a slight twist, on local watershed levels.

We've finished eating the king salmon and scraped its bones off our plates. The sun slips low behind the wind-shaken trees, and we are discussing the ethics of harvesting salmon out of the Mattole River. Hank says he would never take a salmon out of the river. Why not? "Because I know that if I took fish, and if everyone else took fish, there wouldn't be any left," he says. So I ask the begged question: how can he justify having taken a presumably wild king salmon offshore, not far from the mouth of the river?

He seems truly disturbed.

He reflects on his decision to go out ocean fishing and uncomfortably concludes that he placed his faith in an agency whose data and politics he does not completely believe in. He says he *wants* to trust that they have done their research and made accurate determinations about opening the season this year, “but I don’t know if I *do* trust in that.” Yet he is clearly trying to talk himself into it. There is something else going on here, beneath the surface. In an effort to breach it, I bring the conversation back to a topic he had effusively described earlier.

“Maybe your instinct to go out and harvest food, combined with the convenient agency decision to open the fishing season this year, was just powerful enough...?” He laughs and agrees, “Totally.” In a more serious tone, he speaks of the now-rare opportunity to go out and harvest salmon in this part of the world, and the importance of the direct connections with our food that we have largely lost. “I think it’s really important to have that connection again.”

This man went out fishing for connection.

Later in the interview, he says that for himself, personally, it is never okay to take a fish out of the river, but that he can’t judge other people: “I’d rather they didn’t, but they might have reasons to take the fish that I can’t even think of, like they’re starving, or they’ve traditionally harvested these fish since they were kids.” I wonder about that connection, the unbrokenness of it. As my mind wanders, he is talking about how he works on the river and really cares about the watershed and the fish. Something audibly shifts in his tone, there is a simultaneous gust of wind outside, and his voice jolts me back into the dimly lit room.

“I don’t fish on this river but, man, if I pulled in a steelhead on a rainy January day, and I had a fire going...” There is a fire going in his eyes, and he shifts the story so that you are there on the rain-drenched riverbank: “You brought this fish in, and you had a connection – you *have* it there – and you honestly respect it. It would be very tempting to take that fish and eat it.” He then starts to wonder at how much easier it would be for a person who doesn’t have a similar care for the river to take that fish, but stops himself. “Probably a lot of people who do take fish care about the river just as much as I do. Or more.”

For the people of the Mattole River watershed, flung out as far West as one can get in the lower forty-eight, there is a connection that we all seem to be seeking with Salmon. Nearly everyone I interview speaks of it: either a yearning for or a tightly clutched connection to Salmon as wild food. Regardless of their positions on poaching, everyone despises industrial commercial ocean harvest.

Are we as a society at the crest of a philosophical wave over one hundred years in the swelling? Are we wavering at the edge of a turning point in how we approach salmon harvest, and do we have the will to turn that corner? Does the gift economy have anything to teach us, as the industrial machine that overpowered it teeters on the verge of collapse, taking wild salmon populations down with it?

APPENDIX B

INFORMED CONSENT

HUMBOLDT STATE UNIVERSITY
Study of Community Perceptions of Mattole River Salmon

CONSENT TO ACT AS A RESEARCH SUBJECT: CONSENT TO INTERVIEW

I hereby agree to let Flora Brain interview me for research purposes. I am 18 years old or older.

ALL INFORMATION I PROVIDE WILL BE KEPT STRICTLY CONFIDENTIAL; NOTHING THAT I SAY WILL BE LINKED TO MY NAME.

The interview will take place in the Mattole Valley between January 1, 2011 and January 1, 2012 and will take approximately 30 minutes to one hour. The purpose of this research is to determine what people in the Mattole Valley think about local salmon population survival and how they feel about the ways people interact with salmon.

I will be asked approximately 20 to 30 questions. The interview process involves the risk of possible minor emotional distress to me resulting from my sharing my opinions and feelings about salmon survival and human-salmon interactions. The interview process involves the benefit of possible satisfaction from being asked to share opinions and feelings.

This information was explained to me by Flora Brain.

I understand that she will answer any questions I may have concerning this interview or the procedures at any time. I also understand that my participation is entirely voluntary and that I may decline to enter this study or may withdraw from it at any time without jeopardy. I understand that the investigator may terminate my participation in the study at any time.

The recorded tapes of the interview (IF I allow it to be recorded) and interview notes will not have a name or any other identifying feature attached to them. The interview notes and recordings will be kept in a locked file cabinet while the research is conducted and will be destroyed one year after research completion.

If I have any questions regarding the survey and/or my participation I can contact Flora Brain at (707) 822-2696 or fhb11@humboldt.edu. The faculty advisor is also available, Dr. Yvonne Everett at (707) 826-4188 or Yvonne.Everett@humboldt.edu. I may also

contact Chris Hopper, Associate Dean, College of Professional Studies,
cah3@humboldt.edu, (707) 826-3853.

Subject's signature

Date

APPENDIX C

INTERVIEW QUESTIONS AND INSTRUCTIONS

INSTRUCTIONS: Please respond honestly and be candid. If you would like to speak about a topic that you feel is related to one of the questions, please do so. If you are not allowing this interview to be recorded, please allow time for me to take notes of your responses between questions. Thank you.

Background Information:

1. How long have you lived in the Mattole Valley?
2. What things about the Mattole are the most important to you?
3. What is your relationship with the Mattole River? *(if clarification is necessary)*

How does the river fit into your life, or your family's life?

Meaning/Significance of Salmon and Fishing in the River:

4. What do salmon in the Mattole River mean to you? *(if clarification is necessary)*

What significance or meaning do you associate with salmon in the River?

5. How do you feel about fishing in the Mattole River today?

“Catch and release and otherwise, I'd love your perspectives on both.”

6. How long have you been fishing in the Mattole?
 7. What does fishing here mean to you? Why do you fish here?
 8. Can you tell me about any fishing experience that was meaningful to you, or stands out in your mind?
-

9. Did that experience change your behavior or attitude towards salmon (or SH) afterwards?
10. *(If so,)* How?
11. How did you feel about the changes to catch and release only, and closing the salmon season? Was it necessary?
12. Back before the regs changed, did you keep and eat the king salmon and steelhead you caught?
13. Do you think the numbers of salmon and steelhead TODAY require only catch and release fishing?
14. Under what circumstances, if any, IS it a problem for you that fish are taken from the river?
15. Under what circumstances, if any, could you condone (excuse, forgive, pardon) fish being taken from the river?
16. Under what circumstances, if any, could you support fish being taken from the river?

Perception of Population Viabilities:

17. How do you think numbers of salmon and steelhead today compare to 100 years ago?
 18. What do you think are the main reasons that there aren't as many salmon in the river now as there were 100 years ago?
-

19. What is your overall perception of Mattole salmon and steelhead population viabilities? (*if clarification is necessary*) Do you think they will survive so that your kids or grandkids will be able to see them? Do you think there will be lots of salmon and steelhead in the distant future, or that they are about to go extinct?
20. What is your perception of the viability of each species or run: steelhead, Chinook, coho, and summer steelhead?
21. What is that understanding based on? How do you know?

Closing Questions:

22. What would it mean to you to see increased numbers of salmon and steelhead in the Mattole River?
 23. What do you think are the most important things that could be done to increase the numbers?
 24. How would your life be different if there were no salmon in the Mattole River?
 25. Do you think more local people could get involved in efforts to increase numbers of Mattole salmon and steelhead?
 26. Do you have any concerns about the future of salmon and steelhead in the Mattole River that we haven't talked about?
 27. Is there anything that you think I should have asked that I didn't?
 28. Is there anyone who you think has important perspectives that I should try to talk to? Can I tell them that you recommended them?
 29. Could I maybe call you for a second interview?
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APPENDIX D

Selections from THE FISHERIES OF THE MATTOLE RIVER
 Compiled by Susie Van Kirk
 April, 1998

Newspaper References

Blue Lake Advocate: BL (1888-1969), Blue Lake, CA.
 Ferndale Enterprise: FE (1878-present), Ferndale, CA.
 Humboldt Standard: HS (1876-1967), Eureka, CA.
 Humboldt Times: HT (1854-present), now Times-Standard, Eureka, CA.

HT (16 Oct. 1858) Letter from Mattole Valley, Sept. 25, 1858---I saw an interesting article in your paper of the 11th inst., on Salmon fisheries. If some energetic men who understand the business would take a look at our Valley and River, I think it would pay them to examine the facilities for fishing purposes of the Mattole River.

1880-1889

FE (15 Dec. 1883) The Mattole River fishery of Stewart & King have been doing a rushing business this fall. They have had more salmon than they could handle. Several heavy loads have passed through Ferndale on the way to Hookton and much more is to come...

FE (18 Nov. 1887) ...The Mattole is opened and a good run of salmon is reported in that stream. Swett & Fulmore [commercial fishermen from Eel river] will fish there this season.

FE (16 Nov. 1888) We are informed that an opening was made through the beach at the mouth of the Mattole by a crew of men Wednesday as a sort of a starter for the current to cut clear a channel to the ocean that the salmon may make their way up that stream. The people of that section have a jolly time spearing and catching these fish as they come in. It is fine sport and about as exciting as one can imagine.

1890-1899

FE (25 March 1892) The upper Mattole river abounds with silver salmon.

FE (14 Oct. 1892) The Mattole river broke open Saturday night and as a result salmon came into the stream in large numbers.

FE (9 Nov. 1894) Quite a number of salmon are being taken in the Mattole river.

FE (3 Nov. 1899) Jack Smiley, the obliging proprietor of the Petrolia hostelry, while fishing in the Mattole, landed a 39 1\2 pound salmon with a light trout line and pole.

FE (7 Nov. 1899) The run of salmon in the rivers of southern Humboldt is said to be rather light thus far this season. Word reaches us that the run in the Mattole river this year falls far short of the average. As a rule, as soon as the mouth of this stream is opened, salmon make their appearance in large numbers, but this fall their absence is a most noticeable fact.

1900-1909

FE (5 Oct. 1900) The week's rain raised Mattole and Bear rivers several feet, making these streams so muddy that trout fishing could not be indulged in. The mouths of these streams are open and salmon are entering.

HT (2 July 1901) Budget of News from Thorn--The young people of this neighborhood greatly enjoy the sport of trout fishing in the tributaries of the Mattole river this year.

FE (22 Oct. 1901) Indians opened the mouth of the Mattole river last week and it is said that salmon are very numerous in that stream now. A great deal of fun is being had spearing them.

FE (15 Dec. 1903) Steelheads are running up the Mattole river in large numbers.

FE (12 Jan. 1904) Thousands of salmon are now lying dead along the headwaters of the Mattole river, whither they had gone to spawn, and now await a freshet to carry them into a driftpile or out to sea. It seems the great majority of the salmon, ere they are done spawning, are so bruised up by hammering on the rocks and by fighting and through the action of the fresh water, that they die. There are few sights that so "get to a person's taste for salmon as these old soretails," as they are called in the vernacular, dying and dead along the upper courses of our streams at the spawning grounds.

FE (26 Feb. 1904) Salmon are said to be plentiful in the Mattole and North Fork.

FE (16 Sept. 1904) Fine fishing is reported in the Mattole river at present. The fish are making their way down the stream and are being taken in goodly numbers by the local anglers.

FE (6 Nov. 1906) Salmon have been quite plentiful at the mouth of the Mattole river of late, furnishing not a little sport to the people of that section.

FE (8 March 1907) It is understood that the State Commission is investigating a proposition to place men along the Mattole river for the purpose of taking steelhead eggs from the fish which annually congregate there for the purpose of spawning. It is the opinion of the members of the Fish Commission that Eel river does not afford a good chance for the taking of steelheads during the spawn season, but that with proper precaution the shoal waters of the Mattole and its tributaries may be utilized to advantage. Afterwards the eggs are to be shipped to the hatchery at Weymouth's.

FE (7 June 1907) Petrolia News--Fishing is excellent in the Mattole streams at present, especially in the North Fork, where the fish are large and firm and bite as if none of their finny tribe had never been caught.

FE (25 Oct. 1907) Petrolia--Many of Mattole's sports spent several hours of the past few days opening the lagoon at the Mattole river's mouth that the salmon may have a chance to run in.

FE (5 Nov. 1907) Upper Mattole--The rain of last Tuesday was decidedly welcome...The Mattole raised about a foot as a result of the rain and became quite muddy. The boys of the neighborhood have been watching the sky...The possible suffering and loss among the stock did not appeal to them so much as the hope that the salmon would run. And after all they didn't, for the rise in the river was not sufficient to let them up. Quite a number of our young men have been trying their luck at the mouth of the river. A party consisting of Lewis Roscoe, Fred Roscoe, Levi Thrap and Frank Hough started out armed with spears yesterday afternoon. At this writing they have not returned...Frank Hough, who has been engaged in teaming at Needle Rock, arrived at his home and brought...a number of barrels in which the Stewarts expect to salt salmon near the mouth of the river this winter...

FE (22 Nov. 1907) Petrolia--Trolling on the lagoon at the mouth of the Mattole has furnished excellent sport of late. Several good catches were made last week.

FE (3 Dec. 1907) Upper Mattole--...A few salmon have been running in the river since the late little rains. There has not been a good run of salmon, however, since there has not been any considerable rise, the river being only a few inches above the summer stage.

FE (10 Dec. 1907) Upper Mattole--...There has been a rise of a foot or so in the river which is very muddy, and the salmon are running quite briskly.

FE (17 Dec. 1907) Upper Mattole--Just at present there is a lull in the storm that has been raging for several days with only an occasional break. The first high water of the winter was Saturday when the river was several feet too high for fording. On the following day it had dropped until it could be forded at the very shallow riffle near Saunders. The fish were running briskly, and the sporting element turned out in hopes of getting some. The

water was too deep for good sport, however, and not more than about a dozen fish were taken, Lewis Roscoe and Frank Hadley, securing more than half of those. Upper Mattole has fared badly so far as salmon fishing is concerned this winter. Earlier there was not enough water for the fish to run and when it came there was too much to catch them. Forest and Elmer Gardner are the only successful fishermen. They went to the Cottonwood ford a week ago and met the run of fish before the water rose too much. As a result they have a smoke house filled with fine fish...

FE (14 Sept. 1909) Upper Mattole--Fishing is said to be excellent sport lately and many of the fish are quite large. Frank Hadley landed a whopper the other day, it is said, and today at the Miner place the boys took a gun to shoot one that they couldn't get out.

FE (9 Nov. 1909) The Mattole River Valley [article from San Francisco Commercial News]--...The river itself is noted for its fine fishing, and Governor Gillett frequently goes there to enjoy himself, catching the wary salmon trout, as well as other varieties...

1910-1919

FE (15 Nov. 1910) Happenings of Upper Mattole--The men and boys of the Mattole valley are having great sport the past day or two. The mouth of the river opened Tuesday evening and the fish have been running at a great rate since. The fish are very fine ones, also great fat juicy fellows, and everyone has fish. If for any reason any family is unable to catch some, those which are over supplied are willing to divide. There is, perhaps, no event that is looked forward to with keener interest by those of sporting propensities than the first rise in the river, and the first run of fish.

FE (9 Dec. 1910) Wildcats and Salmon Plentiful--The run of salmon in the Mattole this year was something immense. At Ettersburg there were about a thousand of the big fellows spawning on one riffle about 100 yards long. The water was literally alive with fish thrashing about, splashing and fighting among the water...

FE (21 July 1911) Fishing in the Mattole river is reported to be excellent at present.

BLA (23 Dec. 1911) With two and a half tons of salmon taken from the Mattole river near Petrolia, John Titus assisted by David Ball and Albert Thompson arrived in Ferndale Tuesday, the fish being taken to Weeott for disposal to a salmon buyer...

FE (1 Oct. 1912) George Spalding, wife, and brother, Joe, who have spent the past several months at Requa, returned to this county last week. Mr. Spalding and his brother engaged in fishing during the season just closed on the Klamath river and will in the near future depart for the Mattole river where they will fish for salmon during the coming season on that stream. In late years, there has been a big run of salmon on that stream, but little fishing has been done because of the difficulty of getting the fresh fish out to a

market. This year the salmon will be "mild cured" and freighted out when the roads are passable.--Fortuna Advance.

FE (7 Jan. 1913) Advocates Bounty on Fish Ducks--Humboldt county's reputation for being a sportsmen's paradise and her industry of commercial fishing is seriously endangered by the sawbill or fish duck, is the belief of Albert Etter, the plant wizard and naturalist of Etersburg, who spent the early part of the week in Eureka and who said that the ducks of that variety on the Mattole river alone exterminate more than a million young salmon and steelhead annually, besides destroying great quantities of spawn there...

FE (19 Nov. 1915) The fish and game wardens have announced that with the exception of Eel river and a portion of Mad river, all streams in this county are closed to net fishing. This means that it is unlawful to use nets either in the Mattole or Bear river.

FE (11 Aug. 1916) Trout and Steelhead for the Mattole--Last Wednesday evening Messrs. Joseph Bagley and Ellis Hunter took down to the Mattole valley a shipment of about 35,000 young steelhead and rainbow trout to be turned loose in the streams of that section. There were seven cans, Messrs. Hunter and Bagley carrying them down in their autos.

The fish were secured from the Fort Seward hatchery through the efforts of Mr. Bagley, who spent considerable time and was at some expense getting the allotment. They were released in the waters of the main Mattole river, the North Fork and Squaw Creek.

It is claimed that the fish grow from four to six inches a year, so in a couple of years some very fine fishing may be expected in the Mattole section, which is already noted for the fine sport furnished by its streams...

FE (10 Nov. 1916) The annual run of salmon has appeared in the Mattole river and the sport of salmon spearing has commenced.

FE (12 Dec. 1916) Upper Mattole--There was a fine run of salmon in the Mattole river last week.

FE (27 Nov. 1917) Truck Load of Salmon Seized--About twelve hundred pounds of salmon alleged to have been taken illegally with a net from the Mattole river were seized in Ferndale last Sunday afternoon by Game Warden Benson, while they were on a truck bound for Eureka. It is alleged that the fish were shipped by M.F. Gardner of Upper Mattole, who states that they were not to be sold but were for his own use. The fish were yesterday turned over to the county hospital.

FE (2 Sept. 1921) 75,000 Trout Put in Mattole River--Last Monday evening Arthur Way of Eureka went down to Petrolia with 75,000 steelhead and rainbow trout, which were

planted in the Mattole river. The trout were secured from the State Fish and Game Commission through the efforts of Eureka people.

With the young fish which were recently put in that stream by R.M. Poole, Chas. Thompson and W.A. Bartlett of Ferndale, this shipment should go far toward re-stocking the Mattole, which has been heavily fished the past few years.

FE (25 Nov. 1921) Upper Mattole--It is hoped that some salmon will now be able to get up the river. There had not previously been sufficient water.

FE (25 Aug. 1922) Thirty cans of rainbow trout were planted in Bear and Mattole rivers last Saturday by Fred Rushmore, Chas. Thompson and R.M. Poole of Ferndale.

FE (12 Jan. 1923) Etter Writes of Salmon Scarcity--"Editor Enterprise: With the discussions, relating to the scarcity of salmon in our streams and a feeling that net fishermen violating the law are responsible for it, I opine there may be another cause than net fishermen responsible for the reduced numbers of fish ascending our streams to spawn.

I have been on the Mattole river now for 29 years, and there are not as many people in Mattole now as there were 29 years ago. As far as I know, salmon have never been taken for commercial purposes in the Mattole river, and I doubt if more are taken by ranchers now than formerly, yet there are not nearly so many salmon here now as there were ten or fifteen years ago.

Sometimes we cannot tell how many fish actually do run, as they pass in a raise in the river, spawning further up the river. But it is my impression that the last three years have been lean years, progressively so. This season there were scarcely any fish here to spawn even on the favorite riffles. For 26 years previously, these riffles were full of spawning salmon--dozens of them regardless of the raise in the river favoring them going further up stream.

While it does seem to me there have been no really normal runs in the last six or seven years, it is more noticeable the last three years. In this period, sea fishing for salmon has been developed rapidly, and notably so in the last three years. If my observation stands as correct, I think we can blame the scarcity of salmon spawning in our rivers to the fact that they have nearly all been taken at sea. Whether this is good business or not is another question to discuss...If the salmon keep up their progressive reducing in numbers for a few years more, the question as to where they shall be caught, or how they shall be taken, will be of comparatively little importance, as there will be no salmon left to argue about. I am very sincerely, Albert F. Etter."

FE (10 Dec. 1926) Otters Menace to Fish Propagation in Mattole River--The following letter received by the editor of the Enterprise from Albert F. Etter of Ettersburg will be of interest to every angler in Humboldt county...Mr. Etter writes as follows:

"Knowing your continued and keen interest in fish propagation in Humboldt county, I am going to put before you a matter that sooner or later must be dealt with here

on the Mattole river if trout are ever to propagate themselves naturally. Last summer fish were quite numerous in the deep holes that would weigh from two to three pounds and were said to be rainbow trout that had been planted in the Mattole.

A menace to all fish life in this river during the dry season are the numerous otters that live and breed on the stream. On several occasions since I have been here otters to the number of twenty or thirty in a hole have been seen fishing. It is remarkable that any fish are left after a band of otters fish the stream. The fish are certainly cute in getting away from the otters, yet they destroy so many fish there is no question but that some steps should be taken to exterminate the otters if fish are wanted. We can't have both fish and otters...

FE (14 Oct. 1927) Opened Mouth of Mattole--A number of Petrolia people went to the mouth of the Mattole river last Saturday afternoon and opened a channel from the lagoon to allow the salmon and steelhead to come into the stream. It was not expected that the mouth would remain open for more than a few days but it was hoped a good run of large fish would come in shortly.

1930-1939

FE (21 March 1930) Move Under Way for Fish Hatchery on Mattole River--Ex-Mayor A.W. Way of Eureka is actively behind a movement to have a fish hatchery established on the Mattole river by the California Fish and Game Commission.

The need for a hatchery has long been realized by the disciples of Izaak Walton in this county who have seen the supply of trout being steadily diminished by reason of the heavy fishing in the Mattole the past few years.

It is stated by authorities who have investigated the situation that the Mattole is an ideal location for a hatchery and it would be possible not only to maintain the supply of trout in that stream but to furnish large numbers to other streams of the county as well.

The Mattole is one of the few streams in the state in which large numbers of trout have been found the last few years without stocking. A few fish have been liberated in the river in past years but not enough to have been of any material benefit. It is noticeable from year to year, however, that the supply is rapidly diminishing, and action must be taken for stocking it if it is to be a paradise for anglers as in the past.

It is said by those familiar with conditions that there are but few good locations for hatcheries in the state, and that the Mattole presents the best possibilities of any. It is hoped that the effort to have a hatchery established on the stream may be successful.

FE (7 Oct. 1932) Permits Issued to Kill Fish Ducks--Federal and State permits have been issued to Albert Etter, Ben Sutherland, Henry Hindley, Geo. Crippen and Dave Cronin for the shooting of merganser fish ducks, as it is claimed that this duck is devouring thousands of small fish in the Mattole and other rivers. A few of these birds will be killed each month, and from Mattole they will be sent to Ferndale where they will be prepared for shipment. The stomachs of the ducks will be removed and sent to the U.S. Biological Survey at Washington, D.C. for inspection.

In order to halt the protection of these ducks, it is first necessary to prove to the government that they are a real menace to the fish. The work of preparing the birds for shipment to Washington will be carried on by Dr. Hanna and Joe Bognuda. This experiment will be carried on well into the year of 1933.

HT (27 June 1935) Garberville, June 26--260,000 Fish to be Planted--Beginning today 260,000 salmon and steelhead fry will be planted in southern Humboldt streams under the supervision of the county game wardens aided by members of the Garberville Fish and Game club. The planting will occur as follows:...Mattole river at Thorn, 30,000 and Bear creek near Sutherlands, 25,000...
Mattole at Ettersburg, 60,000...

The fish will be secured from the state hatchery on the headwaters of the main Eel river, and transported in cans each holding 2,000 fry.

FE (4 Dec. 1936) The mouth of the Mattole river recently opened by the manual labor of the residents of that section is again reported to be closed. Insufficient flow of water in the river is the cause of the closing. Many fish are lying outside the mouth of the river and will be unable to reach their spawning grounds unless there is a heavy rain soon.

HS (10 Sept. 1938) Fisherman's Luck by Chet Schwarzkopf--...Frank Pidgeon reports that the mouth of the [Mattole] river is still closed and probably will remain so until the first real rains, but that some nice catches of trout, up to ten inches in length, are being made around Petrolia and in the lagoon. Gray hackles with yellow body flies are doing the work, as well as single eggs upon a small hook.

HS (29 Nov. 1938) Fisherman's Luck by Chet Schwarzkopf--...Exciting news comes from the Mattole, via Frank Pidgeon, who says that the first big winter run has hit into that stream and that the water is fairly swarming with fish for the first two miles. "I never saw so many before," was the comment of that always authentic observer. "Everyone had fish, and some of the steelhead ran upwards of 10 and 12 pounds. The run began in the middle of the week." Spinners and bait were taking them, according to Pidgeon, who states that the Mattole steelhead, like his brother of the Mad river, will not take flies, although the water was in good condition. Half pounders and chubs were plentiful and almost every cast, weather into pool or riffle, brought a raise. Needless to say, Frank landed his limit, but returned minus a set or two of tackle, left with big ones that wouldn't be brought to time...

HS (20 Dec. 1938) Fisherman's Luck by Chet Schwarzkopf--...Mattole river enjoyed a fairly brisk week end, according to Frank Pidgeon, who reported the stream below Petrolia active in spots, but generally quiet upstream. A number of nice catches were made Sunday, while earlier in the week, Mrs. Verne Johnson and Mrs. Carl Wallace brought in limits of good sized steelhead which set Mattole-minded fishermen to planning. For that stream is tops when it gets going, and many a Eurekan will turn down

chances nearby to take the trip, enjoy the peace and scenery of a beautiful valley, and get hold of fighting fish. Among those who brought in catches from the Mattole over the past week end were Blaine Boice, Ellery Peterson, Chet Connick, Buff Redmond, Dr. H.H. Stuart, "Sody" Johnson and Frank Pidgeon.

HS (27 DEc. 1938) Fisherman's Luck by Chet Schwarzkopf--...Another winter giant was taken from the Mattole by Stanley Roscoe, who reported to Sam Wells that he hung onto a 17-pound 14-ounce steelhead Monday below Petrolia using a No. 1 hammered bronze spinner...Mattole river seems to be in high gear, according to all reports. Not only did Stanley Roscoe land his winter run giant, but Jack Harris and Stanley, Jr. and Charles Roscoe tied into limits of steelhead and unusually large half pounders--these last running up to 3 pounds. Many big fish are in the river, according to Roscoe, and runs are milling in and out of the stream's mouth. If the present rains are not excessive, there should be fine going along most of the stream. Buff Redmond and Blaine Boice fished Mattole river Monday below Petrolia and reported a big day, everyone taking fish.

HS (6 Jan. 1939) Fisherman's Luck by Chet Schwarzkopf--Our fishing is done and streams were rising this week, heavy seas are pounding the Humboldt coast and winter is here. So this is the last you will see of "Fisherman's Luck" for a while...

Mattole river continued active right to the last, when rising water started them on their way upstream Monday evening. Mr. and Mrs. Mel Parks, Dr. and Mrs. H.H. Stuart, Mr. and Mrs. Howard Hensel, Mr. and Mrs. Frank Pidgeon and Albert Pidgeon were among those who brought back limits of steelhead and reported wonderful sport. Most of the fish were taken Sunday and ranked upwards of 14 pounds at tops. With rising water Monday, the steelhead turned their thoughts from biting to getting underway, thus ending one of the greatest seasons the Mattole has known in years...

HT (17 Jan. 1939) Here...There...Everywhere by Gordon Hadley--Anglers who invaded Mattole and Mad rivers had fair luck over the weekend...

Among the anglers who fished Mattole were Buff Redmond, Blaine Boice, Larry Gafney, Dr. H.H. Stuart, Sady Johnson, Fred Johnson, W.L. Baldry, Harry Dinsmore, Dr. Frank Smith, Bill Moore, Mr. and Mrs. Walter Bull, Mr. and Mrs. Parks, Mr. and Mrs. Frank Pidgeon, Mrs. Nell Thompson, Mr. and Mrs. Russell Thompson, Henry Hunt, Louis Raice and George Jorgensen.

Jorgensen caught some beautiful steelhead, one of them weighing 11 pounds. G.W. Adamson landed a 13 1/2 pounder near the Honeydew bridge. We used a number 2 spinner.

It was estimated that more than 100 anglers fished at the Mattole Sunday. It was pointed out that the stream is being fished harder than the Eel and that a fish planting project should be carried on there. According to Sam Wells, the river has not been stocked in several years and because conditions are so ideal on the river fish should be planted.

HS (6 Dec. 1939) Biggest Salmon Run of Year Reported in Eel River--...Reports from Mattole today were that salmon were running in the Mattole river and many catches were being made...

HS (23 Nov. 1940) Fisherman's Luck by Chet Schwarzkopf--...Last Tuesday, Sam Wells prospected the Mattole river from the swinging bridge near Petrolia upstream to the vicinity of Honeydew. Sam found the stream very clear, not too high, and with relatively few fish in evidence. Apparently the Mattole, like Mad river just now, is undergoing a period of quiet.

HS (13 Dec. 1940) Fisherman's Luck by Chet Schwarzkopf--...Mattole river continues good below Petrolia, according to Sam Wells, who stated that an observer climbed a tree overlooking one pool and counted over two hundred big steelhead. Think of that! They are not trying to move upstream until the water raises.

HS (17 Dec. 1940) Fisherman's Luck by Chet Schwarzkopf--...One of the greatest catches of steelhead trout in years was "harvested" on the Mattole Sunday. According to Frank Pidgeon, to whom the reports were made, the lower stream pools were packed with the winter-run giants, and they were hungry as wolves. Bait seemed to be what it took-- and how they took it! People leaving Eureka in mid-morning Sunday were back with limits by sundown.

FE (13 Sept. 1946) Let's Go Fishing--...Charlie Thompson broke the ice with a 16-pounder on Thursday of last week. He fished near Eastlick. Charlie wonders how any salmon get into Eel River as on the day he caught his first there were some 16 commercial fishing boats on the Eel River bar, within a half mile of shore. According to men living at Camp Weott, this situation is not unusual as commercial boats are reported daily as fishing in the swells just outside the breaker line off the mouth of Eel River. The same situation exists at the mouth of Bear River and the Mattole River.

FE (16 April 1948) Fish Conservation Subject of Meeting at Mattole April 22--An open meeting on fish conservation will be held next Thursday night at the Mattole Grange Hall and sponsored by the southern Humboldt Grange...

Taking of salmon and steelhead for their spawn by sports fishermen and commercial fishing within the immediate area of the Mattole mouth are two major topics of discussion at the meeting. Both actions have caused an alarming decrease in the number of fish in the stream and residents of the district believe the practices, unless halted, will deplete the river of fish life entirely.

One suggestion to be advanced is to establish a seasonal limit on salmon and steelhead such as used for deer. Stocking of the Mattole, long neglected according to Mattole residents, will also be discussed. Mattole leaders have stated that the arbitrary closing of certain portions of the river to fishing while leaving other important spawning areas open, is another contributing cause of fish depletion. The same leaders have

expressed opinions that closer supervision by game wardens or the appointment of special wardens would go far to eliminate flagrant violations occurring in the area...

FE (4 June 1948) Mattole Residents Make Recommendations in Resolution to Div. of Fish and Game--As a result of an open meeting sponsored by the Mattole Grange last month, a resolution was adopted by the Grange making certain recommendations on wildlife conservation in the Mattole District. The resolution was sent to the Division of Fish and Game for its consideration and action. In addition to the major resolution, represented below, a second resolution was included in which the Mattole residents urged a bounty placed on fish ducks. The fish duck population on the Mattole river has increased tremendously, according to experts in the area...

"Whereas the amount of fish in the Mattole River and its tributaries has decreased tremendously in the past years; and

"Whereas the low water river conditions during certain years have not allowed salmon or steelhead to return to spawning grounds; and

"Whereas flagrant violations of the steelhead limit are a common practice by so-called sportsmen; and

"Therefore, in the best interests of fish conservation, we as a group recommend the following to your board for consideration:

"1. That a special warden be assigned the Mattole River during the steelhead season.

"2. That the Fish and Game Commission restock the Mattole River as soon as possible and to restock as often as necessary.

"3. That the Fish and Game Patrol Captain of this district be allocated authority to close any stream during adverse weather conditions which has resulted in the slaughter of trout and steelhead.

"4. That the use of spawn be prohibited during the steelhead season."

FE (22 Oct. 1948) Let's Go Fishing--...Mattole trout fishing near the mouth has crowded the banks of the river with bait fishermen. All had good luck, too. Jack Lund, over the weekend, got a limit of trout on fly--two striking at once in several instances...

HT (26 Dec. 1948) Fisherman's Luck by Chet Schwarzkopf--...Frank Pidgeon, at Buhne's, reports the Mattole clear and plenty of big fish running. The Mattole is a generation behind the streams nearer to Eureka, in point of fishing, due to its remoteness. Runs still come into there as they did in the Eel and Mad 25 years ago. But nowadays it is being heavily fished.

1950-1959

HT (25 Jan. 1950) Mattole Area to Act on Fish Abuses, Petrolia--Destructive fishing practices by alleged sportsmen in this area, principally the Mattole river and its tributaries, has resulted in a heavy loss of fish and indignation of residents in this area.

According to local residents, a group of sportsmen believed to be from the Napa area have for several years engaged in illegal fishing on the Mattole river, holding out for the better part of the winter season. Fish have been caught in the past in large quantities, it was said, and believed possibly diverted to commercial channels.

The most recent deprecation performed by the group, residents report, was the outright destruction of salmon heavy with spawn, entering spawning beds in the tributaries of the Mattole. It was said that the illegal fishermen capture the salmon [and] rip it open to remove spawn. The spawn, it was said, is then in turn sold commercially at fancy prices.

The group ordinarily indulges in winter steelhead fishing on the Mattole river, but since high water has been in effect for several weeks, the fishing has come to a halt, but the spawning salmon have continued their run into the tributaries to lay their eggs.

Complaints have been numerous from this southern Humboldt community each year of discourtesies practiced by this out of county group which invades the Mattole Valley each year...

FE (27 Oct. 1950) Let's Go Fishing--Conditions for fishing the lagoon of the Mattole River were at their best this week with a number of large salmon being taken and many in the lower river. The progress of the salmon upstream reached as far as the Miner pool on the Mattole early this week with four salmon weighing from 20 to 25 pounds each being taken at the pool on Monday. The mouth of the Mattole has been open since the heavy rainfall of several weeks ago.

FE (2 Nov. 1951) ...John Jackson of Petrolia reported the Mattole was open and that fish were coming in and going upstream in about two or three feet of water early this week. He said no fish had been taken near the mouth of the river.

FE (16 July 1954) News from the Mattole Valley--George Black of the U.S. Fish and Wildlife Service arrived in Eureka recently to plan for the investigation of fishery resources for Humboldt, including the Mattole River. Investigation will estimate number and species of fish, the flow needed to sustain or improve the fishery, a map of spawning beds and an estimate of the economic and recreational value of fish populations.

FE (9 Nov. 1956) News from the Mattole Valley--Some salmon are going up the Mattole river and quite a number of Mattole residents are getting their gear ready for fishing.