

Community Forestry Research Fellowship Final Report

Salmon Habitat Restoration in the Pacific Northwest: Toward Collaborative Stewardship through Participatory Research

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Research Problem and Goals

The decline in salmon populations in the Pacific Northwest - from an order of billions to an order of millions - has caused alarm, and varying policy and management responses, for over a century and a half. In the last decade, beginning in the early 1990s, particularly threatened stocks were listed under the Endangered Species Act, and new recovery plans focusing on habitat restoration have spawned intense controversy in communities that reside in the same watersheds as the fish. Salmon conservation is made particularly complicated by the fish's own life history cycle: they travel from freshwater mountain streams, down major rivers, through coastal estuaries, into the far reaches of the ocean, and back again, critically linking marine and freshwater ecosystems, and also implicating all sorts of diverse people, institutions, land uses, and jurisdictions in their fate.

The Skagit River Valley has been identified as the most promising site for salmon recovery in the Puget Sound basin of northwest Washington State. It is the largest river emptying into the Sound and it sustains wild runs of all five Pacific salmon species: chinook, coho, pink, chum and sockeye, not to mention steelhead, cutthroat trout, and char. It is also responsible for having deposited some of the most arable soils in the world on its expansive delta, which was diked and drained in the late 1800s and has been farmed profitably ever since. Like the salmon, this farmland is declining due to the increasing human population and sky-rocketing real estate values that encourage development – new houses, malls, roads, and infrastructure. Farmers argue that in addition to development pressures, salmon habitat restoration efforts threaten the viability of farming here. Meanwhile, local Indian tribes, whose lives traditionally revolved around salmon, and who sponsor one of the most well-respected scientific research centers in the region, have steadily pressured the county to institute conservation plans that would require wide, forested buffers along all fish-bearing streams, including those running through farms. The county, heavily influenced by agricultural and development interests, has balked at this and other fish protection measures supported by the tribes, as well as natural resource agency officials, and environmental activists in the valley. The debate has resulted in a decade of court battles and bitterness between groups. At the time that I started my fieldwork last year, these groups had not yet begun to explore collaborative options for both fish habitat and farm conservation.

Typical of environmental problems, people here usually approach the question of salmon habitat restoration – whether as advocates or as critics – by debating the scientific rationales and technical merits of proposed projects and ideas. My initial assumption was that this flurry of

numbers, maps and technical language buries deeper cultural currents that drive much of the passion in the debate, yet are rarely articulated or legitimated in the same way as scientific information. My goal during my twelve months of field work, therefore, was to begin to “daylight” this braided river of social tensions, unexpected commonalities, loyalties and suspicions, needs, joys and heartbreaks that both unite and divide people around salmon recovery. It was also to explore if and how these underlying cultural currents influence the science that is supposed to transcend them.

My immediate aim was to try to understand what the salmon habitat restoration problem looks and feels like from the perspectives of all the groups implicated in it – restoration advocates, government and tribal environmental scientists and managers, tribal and non-tribal fishermen, county and regional officials, farmers and landowners, and farm advocates – and thereby build a deeper local understanding of the problem that would hopefully contribute towards its resolution. My larger intention for the project is to exemplify the need for social perspectives in environmental science and management, and to contribute a first world case study to the field of political ecology that engages postcolonial studies, science studies and studies in the social construction of nature. Through participatory and ethnographic research consisting of interviews and participant observation, and attention to contemporary documents such as the local paper, I planned to observe and record narratives, language, events and activities pertaining to salmon habitat restoration in the valley. Specifically, I planned to interview 5-10 members of each group, using a mix of semi-structured confidential and oral history interviews, the latter to be archived at the local historical museum. I also planned a survey that would quantify and broaden the scope of the more significant ethnographic insights. Ideally, I hoped to involve participants in all stages of the research process, and to creatively and collaboratively seek common ground that would allow both fishing and farming to remain viable livelihoods in the Skagit valley.

Field Experience and Participatory Research

Overall

My field experience so far – 15 months in the Skagit Valley, minus a few due to other responsibilities – has been rich, varied, and I think in the balance, successful. Over the year I conducted more than 50 scheduled interviews, about 12 of which were recorded as oral history interviews, and attended over 40 meetings, conferences and events. As is common with field research, I took several unexpected turns, left some paths unexplored, and did not travel as far down the road as I had hoped. As I reported in my midterm report, the most rewarding part of the experience has been local enthusiasm for my research topic and willingness to participate. On the whole, people here have been very warm, welcoming, respectful, and generous with their time and stories. Opportunities to accompany people in daily activities or special events – e.g. biological field work, fly fishing, riding a tractor, attending a pow-wow – have been most fun and stimulating. Hearing, from one interview to the next, equally passionate, yet mutually exclusive or mutually accusatory arguments and pleas regarding everything from planting buffers to potato farming to duck hunting have been fascinating as well as heartbreaking.

At the same time, it has been an isolating experience. Unlike a typical anthropological case study where the researcher immerses herself in one community, I attempted to maintain an aura

of neutrality that would allow me to gain at least minimal *entrée* into multiple communities. This means that I did not spend extended periods of time with any one group of people and rarely established the familiarity or trust needed to create a viable social network for myself. But this is also a place where 20-year residents are still considered “newcomers”!

Gaining entrée into multiple communities

While I still feel it is a worthy goal, I have learned firsthand the pitfalls of attempting to maintain neutrality, work with multiple groups, and achieve “ethnographic symmetry” between players. First, not all groups are created equal when it comes to field work – people in certain professions are easier to work with than others, some trust me more or less because of how they perceive me, some have different human subjects requirements associated with them, etc. In rough order, I have found it easiest to work with: fisheries biologists (and other researchers), restoration advocates, farm advocates, farmers, and tribal members. Why is this?

One, I think fisheries biologists are particularly curious about my research question. As researchers themselves they are probably most familiar with my research process and sympathetic with my position as a researcher, and support my research endeavor in the hope that it will shed light on the social context for their own work. Most of the people who have initiated interviews with me (rather than the other way around) have been fisheries biologists.

Restoration advocates - i.e. people working for NGOs in education and outreach – have tended to be young(ish) and female, with an urban, liberal, environmentalist and college-educated background, all of which match my own characteristics, thus suggesting initially, I think, that I am “one of them.” But I also sensed their expectation that therefore I, too, would be a restoration advocate, and their ensuing disappointment and confusion when I made it clear that my research would not necessarily support their conservation efforts.

I had less immediate rapport with farm advocates, and it took me longer to establish contacts with them - i.e. people working in the county and NGOs on behalf of farmland conservation and services – but once I did, they were consistently encouraging and interested in the project, and did not appear to expect that I would be more than a researcher.

Farmers have had more of a mixed reaction, some eager to participate in interviews, some hesitant and some not returning calls. Farmers are the only people who have directed overtly suspicious looks and questions at me. Faces sometimes cloud over when farmers learn I am a student from the University of Washington (the rival of Washington State University, that many of them attended), and that I am conducting research related to salmon habitat restoration. In one meeting, a group of farmers asked me pointedly, “Do you like farmers? Are you an environmentalist? Do you think wetlands are more important than farms?” (I answered: yes; yes, but I define ‘environmentalist’ in my own way; and no). In order to ease the suspicion that I am anti-farmer, I tend to mention that my mother grew up on a farm in Idaho and that therefore I come from a farming family and understand some of the attachment to farming. I cannot say the same for fishing.

Finally, tribal members have been the most challenging group to work with, mostly because they are subject to different “research with human subjects” requirements than other groups. According to federal policy I must obtain tribal council approval for the research project in order to interview tribal members. Two of four tribes in the valley approved the research, one contingent on a detailed legal agreement. Once these hurdles were crossed, however, the handful of tribal members I did meet with have been extremely warm, welcoming, and willing to spend whole days with me. I was particularly honored to be invited to a small pow-wow that initiated the longhouse for the winter ceremonies.

Participatory research

While the literature suggests that participatory research ideally consists of local community members consulting an academic researcher on a research project that they initiate and conduct themselves, my experience in the Skagit Valley suggested that local participants here expected and indeed *wanted* me to do the bulk of the work. On the whole they were very supportive of my research idea, refined it according to their own concerns, and looked forward to the results, but since many lead busy work lives already, they did not indicate a desire to spend their own time actually doing the research. In addition, people often expressed hope that as an outside, “neutral” researcher I could learn what people on “the other side” were thinking, that they would not necessarily share with each other. People expressed hope that I would be able to go deeper than public rhetoric and put “the whole story” on the table so that everyone could collectively examine differences (confirm or reject suspicions of each other) and discover potential commonalities among themselves. While these were tall orders, I implicitly agreed to take on this mediator-messenger role for myself. I understood that it could be a helpful step toward facilitating mutual understanding and rebuilding trust that has eroded over the last decade. At the same time, when I make my results available, I will need to be careful to point out that they are necessarily partial, they do not reflect what people are “really thinking”, and they have been influenced by my own interpretations at every step. In general, my research has been participatory in that Skagit locals have participated in interviews, invited me to related meetings and events, directed me towards other potential interviewees, proposed and refined the scope and questions of my research project, and in some cases provided friendship and moral support.

There have also been several discrete ways in which my research has been participatory. Shirley Solomon, my community partner and director of the Skagit Watershed Council asked me to conduct a survey of restoration volunteers at two restoration planting events in May, 2005. In order to improve educational and outreach efforts, Shirley and other volunteer coordinators were interested in who volunteers to do restoration work, why they come, and how they feel about their volunteer experience. I conducted interviews with the organizers, held focus groups with selected volunteers, and distributed a questionnaire to all volunteers at both events, ultimately producing a report called “Understanding the Volunteer Experience in the Edgewater Park Restoration Project”, now posted on the Skagit Watershed Council’s website at: <http://www.skagitwatershed.org/pdf/EdgewaterSurvey.pdf>.

In addition, the director of the Skagit Fisheries Enhancement Group recently invited me to assist with a restoration and community-building project in the Day Creek watershed of the Skagit Valley. They plan to engage local residents in a series of workshops and restoration plantings

that are intended to celebrate the natural and cultural history of the Day Creek community, and build awareness and support for salmon habitat restoration. They have asked me to conduct a handful of oral history interviews with old-timers and elders on the topics of fishing, farming, logging, wildlife and flooding. Excerpts from the interviews will be compiled into a booklet, along with other information about the Day Creek watershed and community, for locals and tourists. I will be doing these interviews in the coming months.

Finally, I met several times with a special assistant to the director of the Washington Department of Fish and Wildlife. He was the mediator involved in a recent negotiation between WDFW, Skagit delta drainage districts and local tribes, that resulted in an award-winning collaboration (or compromise, depending on who you talk to) addressing drainage and fish habitat needs in the delta. He proposed that I help him plan a program in collaborative environmental leadership that he is designing for WDFW employees.

I very much enjoy the feeling that my work has taken on a “participatory” quality, in the sense that people have been asking me to help them with needs they have identified and are thinking of ways that my research results can be applied locally. However, allowing this to be a participatory process, in addition to needing to gain entrée into multiple communities, has meant that my field season will extend to about 18 months. I also still need to complete the survey work.

Preliminary Findings and Analyses

In some ways what I have written so far constitutes preliminary findings and analyses. I begin to illustrate the complexity of the local controversy over salmon habitat restoration here: how it ensnares people and topics beyond the obvious, such as American Indians, potato farmers, and duck hunters; Wal-Mart development, inter-collegiate rivalries, and perceptions of a graduate researcher from Seattle.

My first major finding, or research task, is to produce, as I like to explain it, a “history of the present”: over the last year, what happened in the Skagit Valley with respect to salmon habitat restoration? Who was involved and why? Which laws and policies and cultural trends were at work? What role did governmental agencies and quasi-governmental and volunteer organizations play? What happened to the fish and the river? What new knowledge was created? What social and political shifts occurred? Short of writing my dissertation, I will try to present a few of the interesting things I learned about the local story over the last year.

One, the number of groups and amount of activity related to salmon habitat restoration in the Skagit was more than I had originally anticipated, making it impossible to track everything in depth. To illustrate, the Skagit Watershed Council has 32 member organizations, and has overseen 44 projects since 2000. This does not include projects that are not funded through the Council. I persisted in maintaining a county-wide scope in my research and therefore gleaned only a preliminary understanding of how agencies and organizations with different missions and varying kinds of power interact around salmon recovery. Nonetheless, it was particularly interesting to note that those organizations with missions to recover salmon were distinct in their approaches to habitat restoration; they did not speak with one voice. For example, the Skagit

Fisheries Enhancement Group and the Conservation District advocated planting native trees and shrubs along fish-bearing streams. The Skagit River Systems Cooperative (the tribes' research center) and WDFW (in some cases), on the other hand, advocated larger-scale projects that would encourage habitat to create itself, such as removing dikes and replacing tidegates. Members of these organizations were not necessarily in agreement over the rationales and ecological merits of each approach. In contrast, agricultural groups appeared largely consistent in their resistance to habitat restoration, typically explaining that it would threaten the viability of farming by reducing farmland, and that they did not appreciate outsiders trying to control the local landscape.

Two, I originally conceived of the problem as a conflict. However, over the course of the year, I was impressed to observe several ways in which people began to collaborate around salmon recovery. For example, with the help of a mediator, the WDFW, the tribes, and an agricultural association collaboratively produced maps that more clearly delineated agricultural drainage ditches and potential fish-bearing streams. This helped reduce farmers' fears that the farmland drainage infrastructure would be compromised by restoration measures. The exercise generated a precedent and some hope that the tribes, the County and farmers could work collaboratively on their next looming challenge – the Critical Areas Ordinance that will specify habitat buffer requirements - rather than fighting each other in court.

In addition to a “history of the present”, and partly by way of explaining it, my goal was to explore cultural themes underlying the controversy over salmon habitat restoration. Specifically, I planned to analyze differences in how research participants perceived the history, knowledge, nature, places, and people of the Skagit Valley. A more thorough analysis of my field notes will help determine whether these are ultimately the most relevant topics to focus on. My goal is to identify those subjects that Skagit locals suggest are most important, and of these, center my analysis on the ones that I also think are important.

Preliminarily, a striking finding was that more often than I expected, asking about perceptions of restoration often revealed perceptions of Indians. I expect that a major theme for analysis will be how research into the social dimensions of salmon recovery leads into the fascinating but disturbing realm of white American ideas about Native Americans. Comments I heard about Indian people could be characterized as ill-informed, as well as curious, suspicious, accusatory, admiring, romantic, and disillusioned. Perhaps the latter is most apt: a sense of disappointment and disapproval that local tribes were not living up to expectations of how they had once been, or should still be - in other words, the *disappointment of an illusion* - was palpable in many interviews.

Another remarkable finding was that a range of people expressed spiritual-like attachment to certain aspects of the landscape that they would passionately defend. The meaning invested in these places and beings seemed to depend on an understanding and memory of a particular history associated with them – a history that helped create the person's own identity. For example, a dairy farmer painfully remembers when the one-room school house in her neighborhood was deliberately burned down by newcomers who did not respect the history of the local Scandinavian and “Tarheel” community. A restoration ecologist explains that the passion driving his work is a sense of loss of wildness in the world since the agricultural and

industrial revolutions. A fly-fisherman finds solace in remote creeks, reminding him of enchanted summers on the ranch with his uncle. A crop farmer resists the intrusions of a journalist on his land because the years of living and working there have made it a sacred place. A tribal elder mourns the inexplicable loss of salmon in the river, and connects this to stories of the Creator and his grandfather's shock at seeing the first white picket fence in the area. Notice that the scope and resolution of historical understanding is distinct in each case, tailored to events and places that the individual finds meaningful. In other words, although each person lives and works in the Skagit Valley, they do not share the same *place* because they do not share the same historical and experiential understanding of this place.

Similarly, I think my research results demonstrate that this way in which identity is constructed and reinforced through particular historical understandings of place helps explain why people do not necessarily agree on which kinds of knowledge should be applied here. Scientific, ecological knowledge, for example, guides restoration projects, but has little room for celebrating the cultural history of the area to be restored. With its taxonomic detail and evolutionary context, it reinforces an ecologist's appreciation of wildness, but can hardly address logging or farming histories, other than positing them as erasers of natural history. Perceptions of different kinds of knowledge become more complicated when taking into account perceptions of knowledge-producers. Perceptions of Indians influence perceptions of the credibility of scientific knowledge produced by the tribal research center, for example. Perceptions of farmers influence perceptions of the credibility of local farming knowledge and history. Finally, almost everybody I talked to called for "more education" to solve the local conflict. But education about what? Not surprisingly, my interviewees wanted other Skagitonians to learn more about farming, Indians, fish, the river, and, ultimately, themselves. And I want them to learn more about environmental anthropology!

Benefits of Research to Community

I just consulted a friend and local "key informant" on this question. He reminded me of something the director of Shared Strategy, the Puget Sound-wide salmon recovery group, said: that the greatest challenge to salmon recovery is distrust among stakeholders. He felt that my work would help build trust among Skagit communities by helping people understand each other better. I think building trust is a potential benefit to the community, not solely for the purpose of salmon recovery, but toward finding some common ground in salmon and farm conservation. I also hope that I can theoretically analyze the material in a way that suggests alternative narratives about the people and places in the Skagit, and their relationships to each other, that are helpful in rethinking entrenched problems and in creating a desired future for the valley.

Concretely, I am able to offer the local community recorded and transcribed oral histories: publicly available, archived observations on the valley's past and current transitions. These have potential for future historical research as well as documentary and theater work, and have already been put to good use. For example, a graduate student in visual anthropology has been combining audio from selected interviews with video footage of the valley in several short educational modules to illustrate social complexity in environmental management. A playwright used one interview to develop a character for a community-based play he directed in a nearby mountain logging town. Recently, a "professional storyteller" invited me to participate in

developing a pageant-like play about the history of the Skagit Valley that would draw on the oral histories I recorded. These have been the most exciting results of my research because I think the material will have the greatest capacity to build trust and tell alternative stories if it is communicated in creative ways.

Lessons Learned

As I mentioned earlier, I learned that it is not easy to achieve “ethnographic symmetry” between diverse groups. Each requires different approaches with varying levels of effort.

One of my original fears was that it would be difficult if not impossible to do participatory research in a conflict setting. It turned out that as long as I maintained a relatively neutral identity, people welcomed me as a potential solution to the conflict.

Firsthand experience taught me what I should have known from my training in anthropology: that scheduled interviews are not necessarily the best way to establish rapport or glean important information. Attending public meetings and conferences could be equally if not more helpful. On these occasions I was often introduced to key people in person, which in contrast to phone introductions, established stronger credibility for me and my work, and usually ensured follow-through. I also learned tidbits in hallway conversations that were sparked by the immediate events. Also helpful were the times that I showed up at public events like a Halloween party or in public places like cafes and the local Farmers’ Market, not as a professional researcher, but just as myself, and happened to meet people relevant to my work. I think this helped create more of a two-way friendship, rather than an interviewer-interviewee relationship, and led to richer research experiences. If I were going to do it over, I would spend more time creating opportunities for chance encounters and unexpected things to happen.

My initial entrée into my field site was rocky. People did not have a clear idea of what to expect from a graduate student in environmental anthropology. There was some initial misunderstanding and suspicion of me and my proposed project. I worried – and still worry – that local participants expect things from me I cannot deliver, such as advocacy for their causes, or a complete and objective account of the problem. A committee member suggested early on that I develop a formal agreement with my community partner, laying out expectations for the researcher and the community as a way to clarify initial confusion. We ultimately dropped this idea, but had I come into the community prepared with this kind of agreement, it may have smoothed some early tension.

I learned that attempting to meet expectations of the UW internal review board (IRB; or research with human subjects division) was daunting, extremely time-consuming, and at times infuriating. For example, the UW IRB had to make up rules to deal with my plan to conduct oral history interviews and took five months to do it. Expectations with respect to cultural anthropology are still in flux and IRB and faculty expectations are inconsistent.

Trying to obtain tribal council approval was a particular challenge and it is not clear what lessons to derive from the experience since my experience with each tribe was different. I would begin

the process of requesting approval earlier and I would rely more on personal and in-person connections than official ones.

Finally, my project was very broad and complicated and I often wished I was working as part of a research team rather than on my own. A team could have offered the time, ideas, skills and support that I often felt I did not have enough of to fulfill the project's potential.

Since CFRF requires a participatory approach, the program could address some of these points in reviews to proposals and in the –already very helpful- annual workshop by, for example:

- providing examples of participatory work in conflict settings
- evaluating pros and cons of a range of participatory methods
- advising on the personal aspects of field work (e.g. the need to have your own community, too, and suggestions for how to get one)
- advising on the professional aspects of field work (e.g. how to deal with the challenges of working independently, such as lack of structure or work peers)
- providing more guidance on what constitutes a reasonable scope for a project involving participatory research
- providing templates for research agreements with local communities
- helping anticipate IRB challenges that might arise specifically from doing participatory work in the U.S. and with American Indian tribes
- suggesting ways to involve a research team (if applicable)

Thank you!