

Community Forestry Research Fellowship Program Final Report
January 9, 2006

A. Paige Fischer

**From the Ground Up: Conservation of at Risk Ecotypes Based on the Knowledge,
Motivations and Capacities of Family Forest Owners**

Summary of Research Problem and Goals

In the United States, where 70% of the land area (Natural Resource Conservation Service 1996) and 90% of threatened and endangered species habitat is privately owned (US General Accounting Office 1994), private lands are where many of the thorniest natural resource conflicts occur. For this reason, habitat conservation on private lands is a critical issue in natural resource management. This is especially true in the Willamette Valley of Western Oregon where 96% of the land area and four out of five threatened habitat types are located on private land (Oregon Biodiversity Project 1998). The valley's hallmark habitat type, Oregon white oak woodland and savanna, is arguably the most vulnerable. Due to its location in prime areas for expansion of urban development, vineyards and tree plantations, and the elimination of the periodic fires to which it is adapted, the quantity and quality of Oregon white oak is in decline.

While conservationists and natural resource agencies are attempting to conserve oak, little effort has been made to understand the interests of family forest owners, on whose lands much of the remaining oak habitat is located. Addressing complex problems like the conservation of Oregon white oak requires that policymakers go beyond the technocratic model of decision making (Holling 1995; Fischer 2000). A cooperative or deliberative model builds on communication between stakeholders, understanding each other's perspectives, establishing trust, and creating atmosphere where all members can contribute their expertise (Fischer 2000; Yaffee 2000). Such an approach fosters decisions that embody the values and perspectives of target groups, the key to successful policy (Schneider and Ingram 1990; Schneider and Ingram 1993).

The goal of my PhD research as a Community Forestry Research Fellow is to understand the policy environment surrounding Oregon white oak conservation on family forests in Oregon's Willamette Valley. My intent is to address the disconnect between scientific and policy experts and landowners in their approaches to oak management and conservation. Through individual interviews, group policy deliberations and participant observation, I compare how the key stakeholders in oak conservation frame the problem of oak's decline and opportunities and constraints for its protection. Consultation with an advisory committee of stakeholders brings a participatory element to the research. It is my hope to provide decision makers information about family forest owners' needs, capacities and socio-economic contexts so they can reach out to this target group with empathy. By illuminating areas of common ground and conflict in stakeholders' interpretive frames, my intent is for my research findings to help foster cooperation between stakeholders and avert potential conflicts that arise from conservation strategies.

Field Research and Data Collection Experience

My research is structured as an embedded case study. I examine the oak conservation policy environment (the case) through the main stakeholders, or the “community of interest,” which comprises family forest owners, natural resource agencies and conservationists (the embedded cases). During my fellowship I conducted 35 in depth individual interviews. I was also a participant observer at 7 oak conservation workshops for landowners and 4 meetings of stakeholders. Through this fieldwork I explored the knowledge, beliefs, values and interpretive frames that influence the stakeholders’ relationships with oak. I established a preliminary advisory committee of owners, conservationists and agency personnel, and sought advice from the initial members on my research goals and design. I have also prepared to conduct group policy deliberations to help stakeholders apply information about these interpretive frames to the development of oak conservation policy designs. The next step of my PhD research is to expand the advisory committee, conduct the group policy deliberations, and engage the advisory committee in the analysis.

I faced several challenges in conducting the participatory part of my research. One aspect of my research design that I struggled with was the role of the community. On the one hand, I wanted my “community of interest” to participate in all stages of the research. On the other hand, I was unsure how to engage them effectively and efficiently. My PhD committee cautioned against giving non-academics control over the research. They were concerned that non-academics would steer my research away from basic knowledge and theory and toward applied research and advocacy. They felt that community members should provide input on the research and verify findings, not set the goals or collect and analyze the data. My PhD committee was also concerned that the advisory committee members’ roles as both subjects in the research as well as analysts would compromise objectivity.

After much deliberation and an extensive review of the literature, I attributed some of my PhD committee members’ concerns to lack of familiarity with participatory research. Participatory researchers offer various ways for judging validity. Some reject the concept of an objective determination of validity as essentially positivist (Gaventa 1991). Others determine validity by evaluating the choices that researchers make (Bradbury and Reason 2003) in research questions and methods. Also, validity can be judged by the research’s ability to contribute to solving people’s problems (Comstock and Fox 1993) and creating vehicles of transformation for overcoming obstacles to emancipation (Park 1993). Similarly, the quality of participatory research can be indicated by the level of involvement and enthusiasm of people, the usefulness of the work and outcomes, and the degree to which methods are congruent with a participative orientation, in that they evolve as a result of mutual engagement and influence by researchers and community partners (Bradbury and Reason 2003). The usefulness of objectivity with social data is disputed (Fischer 2003; Howlett and Ramesh 2003), especially in constructionist studies where the researcher is assumed to be inseparable from the research setting. Instead, Lincoln and Guba (Lincoln and Guba 1985) suggest that research be evaluated by its “confirmability” by holding findings up to critical questioning by researchers not associated with the study.

To address my PhD committee's concerns, I altered the order of my research. In the first phase, I used qualitative individual interviews, participant observation and archival research to understand how the main stakeholders frame the problem of oak's decline and opportunities and constraints for its conservation. In the second, more participatory stage of the research, I will convene the full advisory committee to review the results of the first stage of the research and inform the design of my group policy deliberations, and I will conduct the policy deliberations. In response to my PhD committee's concern that my research was bordering on advocacy, I decided to focus on my basic research questions of understanding the relationship between the ways in which stakeholder groups frame oak conservation and their choices of policy tools rather than on developing the policy alternatives themselves.

Before embarking on my research, I realized I needed to expand my sample. In my original research design, I included forest owners and conservationists in my "community of interest" or population. I decided to expand my sample to include natural resource agencies as well. I did not originally include natural resource agencies because I saw them as already participating in policy. Participatory research is often described as the involvement of, if not control by, local community or otherwise oppressed and excluded groups in the research process. Ideally these groups should define the research problem, collect and analyze the data, and apply the findings to an end that benefits the group. I saw natural resource agencies as the "policy-makers," the group who needed to facilitate participation by forest owners and conservationists in policy-making. I have reconsidered the definition of my sample. Natural resources agencies are the group that will ultimately incorporate my findings into their work. They are very influential stakeholders in the conservation policy process. Furthermore, they own the "problem" that my research questions address; they have designated oak as a threatened habitat type and are developing conservation policy without adequate understanding of their target group. For this reason, I decided to treat them as part of my community of interest.

In examining my own assumptions about participatory research, I also realized that forest owners were not the primary members of my community of interest. While I had originally emphasized understanding their views and contexts in my research plan, I realized that I should give equal attention to other stakeholders. Forest owners didn't "own" the problem I was trying to address in my research. Other stakeholders – natural resource agencies and conservationists – had identified oak's decline as a problem. I reworked my research plan to focus on understanding all the main stakeholder groups instead of just the landowners.

After conducting my first "test" interviews I also realized that I needed to enlarge my study area to obtain a more diverse sample. My original study area was the Muddy Creek Watershed, between Corvallis and Eugene, Oregon. I initially picked this area because several agencies and conservation groups considered it a conservation priority area. However, the people I interviewed were more educated and experienced with conservation than I expected, perhaps a result of their close proximity to 2 major universities and the offices of several organizations and agencies that actively promote conservation. I decided to expand my study area beyond the Muddy Creek Watershed to include the entire Oregon white oak ecotype. This area is defined by the historic range of Oregon white oak in the Willamette Valley. By expanding my study area, I tapped more

diverse perspectives on oak conservation than would have been possible in the original design.

Another change I made in my research design was the sampling method. I had originally decided to select a random sample for the individual interviews and a combination of random and purposive sample for the group policy deliberations. Before beginning my research, I realized that the average landowner might not have enough experience with conservation policies to feel comfortable engaging in a discussion about alternative designs. I decided to select the interviewees purposively. I identified them through assistance providers, such as extension agents, and other landowners. While the owners I interviewed are typical of family forest owners who consider assistance programs, they are not typical of all family forest owners. If I had selected owners randomly from the population of all private landowners, the sample would have been more balanced and representative of the average owner.

Preliminary Findings and Analysis

My findings are very preliminary at this point, as I am still conducting my research. Most of my results concern family forest owners' knowledge, beliefs, values and interpretive frames regarding oak conservation and their policy implications. Family forest owners manage not only for economic return, but also for ecological diversity, aesthetic beauty, historical significance and family recreation. In trying to better understand the ramifications of this management approach for oak, I learned that on the one hand this social diversity can benefit the biophysical diversity of their properties. Owners choose to manage diverse species and landscape conditions to meet their diverse goals. For example, they create or set aside meadows and oak stands alongside commercial land uses. On the other hand, the biophysical diversity of their properties in the oak ecotype – soil types, aspects, soil depth – can determine owners' management styles. Owners don't manage their poor quality sites for commercial Douglas-fir plantations because they see a higher use in grazing, wildlife habitat or vineyards. Regardless of the cause, in having diverse motivations and values, as well as diverse conditions on their properties, owners face trade-offs in conserving oak. They sacrifice timber income by allotting more ground to oak trees; they increase their liability for fire by fostering savanna structure; they risk damage to valuable Douglas-fir trees in oak release treatments; they introduce invasive species by disturbing the soil in oak restoration treatments; and they incur opportunity costs for foregoing more profitable land management strategies, such as converting oak stands to vineyards and tree plantations, or selling land for development. Most notably, the owners see a perpetual challenge in trying to manage an ecotype such as oak that is always in flux. To mimic historic disturbances, such as fire, that used to hold invasive vegetation, including Douglas-fir, at bay, owners must now conduct regular restoration treatments. Every year or so they must mow grasses and forbs, conduct prescribed burns, thin encroaching trees and spray herbicides. Such practices can be very costly, and as one owner described, "it's swimming against the tide." Policy must address the trade-offs and financial burdens that oak conservation entails.

Owners' views on policy opportunities and constraints are diverse. The owners in my sample are aware of the challenges society faces in creating sound conservation

policy. Many look askance at regulation as a blunt tool that turns owners away from altruistic conservation projects, such as providing habitat for rare species. Some recognize conservation as a social good, and believe that society should compensate them for providing it. Others require only sound scientific information; they will conserve oak stands on their property with or without assistance, and would rather not risk entanglement in bureaucratic government programs. A small number argue that markets must be created for oak products in order to inspire owners to manage oak stands.

The owners identify specific impediments to oak conservation including lack of information to guide them in oak restoration, lack of scientific agreement about how to measure success of restoration, technical difficulty of conducting restoration, dearth of forestry policies and programs that promote diversity over commercial Douglas-fir production, and disagreement within the ecological profession about desirable conditions for restoration (i.e. savanna v. woodland, natural v. managed conditions). They also identify some broader social challenges to oak conservation, including cultural myths that timber production and conservation are mutually exclusive, competing interests and stakeholder politics that impede community conservation efforts, creating a public good out of private conservation efforts so that the public's money benefits them, and the lack of public funds for providing financial compensation for conservation. Owners point out opportunities for oak conservation. They recognize that the demographic characteristics of family forest owners in the oak ecotype bode well for oak conservation and they laud the education, technical assistance and incentive resources that are becoming more available to landowners.

In considering the policy implications of my preliminary findings, I referred to the literature. Policy theorists argue that policy designs must correspond to the characteristics, especially the motivations and needs, of target groups (Schneider and Ingram 1990; Schneider and Ingram 1993; Schroedel and R 1998; Rist 2000). Schneider and Ingram {Schneider, 1990 #121 offer a framework for analyzing policy tools based on theories of individual behavior: authority tools assume people are motivated to obey laws and regulations and act when they believe that current law directs or permits them; incentive tools assume that individuals are "utility maximizers" and will make choices that will lead them to tangible payoffs if they have adequate information, decision-making skill and opportunity; capacity tools assume that people lack necessary information, skills or other resources to make decisions but would welcome assistance if available; symbolic and hortatory tools assume people must be motivated by beliefs and values implicit in policy and that these beliefs and values can be manipulated; learning tools assume that people are uncertain about the nature of a problem and its solution, but are able to select appropriate tools through learning and cooperative experiences.

My preliminary findings about owners' knowledge, beliefs, values, and management contexts imply some policy options. While the owners are motivated to manage for diversity, they are not very familiar with oak. Symbolically linking oak to owners' values about diversity and the history and family legacy of their land may interest owners in oak management. Emphasizing the anthropogenic nature of oak may help owners view it as another aspect of nature that can benefit from human intervention. Once owners are interested, education and training can build their capacity to manage for the ecological requirements of oak. Helping communities of owners organize themselves within the broader spatial context of their lands and management decisions might also

foster the collaboration between landowners necessary for large-scale oak conservation. Authority tools should explicitly permit oak management so owners do not feel that their only option is to underplant oak with conifers, a vestige of state forest practices rules, some with unanticipated, perverse consequences. Once owners have enough information to recognize oak management as an opportunity, they may seek out tangible payoffs. Incentives such as tax credits, cost-sharing, regulatory relief, conservation rent and market creation can make oak management financially viable in the face of market preferences for Douglas-fir. If owners get to the point that they recognize oak's decline as a policy problem, they may be willing to participate in learning forums with other stakeholders to understand causes and solutions. These forums also provide policy makers opportunities to better understand owners' capacities and motivations (Schneider and Ingram 1990).

Benefits to Community of Interest

While I hope that my research will benefit my community of interest, I will not know for several years after my research is done. I hope to help family forest owners have a voice in policy design for conserving habitats on their lands. I hope to help decision makers better understand the target group of their policies. I hope to help policy actors, such as conservationists, consider the social aspects of the habitats that they are trying to protect. So far, the family forest owners have expressed appreciation for my research. The oak enthusiasts among them were pleased to learn that oak has been identified as a priority habitat type and efforts are underway to conserve it. The less conservation-minded owners expressed gratitude for my people-based approach to policy analysis. In the past, some family forest owners have been disheartened by top-down technocratic approaches to forest policy, and feel that they have been burned by misguided regulations and land use restrictions. While many owners doubt policy's ability to help them manage for oak, all appreciate being consulted about alternatives. The people I interviewed at natural resource agencies and conservation organizations said they benefited from the opportunity my interviews provided to reflect on their beliefs, values and assumptions about conservation. In the day to day routine of their work, they do not always have to change to examine their presuppositions and value-systems.

I hope that my findings will provide more tangible benefits to the family forest owners, natural resource agencies and conservationists that comprise my community of interest. I intend to help them identify areas of conflict and common ground in their views on oak and approaches to conservation so they can forge mutually beneficial strategies. When I am finished with my research, I plan to present my findings to my community of interest in a public forum. At that point, I will have a better idea of the benefits of my research to the community.

Lessons Learned

The most important lesson that I learned as a Community Forestry Research Fellow is the benefit of staying open-minded and flexible about one's definition of participatory, community-based research. Meanings of "participatory" and "community" range along a spectrum. Choosing a definition to operate on comes with trade-offs. One's

choice should be driven by the research question, study area and population, not by theory alone. In my case, understanding how stakeholders frame the subject of oak conservation requires conducting research among a diverse community of stakeholders on the broad geographic scale of the oak ecotype. Instead of a “community of place,” I treat my population as a “community of interest.” This approach presents some challenges. Conducting my research across a 12,000 square mile area limits the extent to which I can immerse myself in the social worlds of my sample members to understand their views and actions in detail. It also limits the extent to which I can engage individuals from my sample groups directly in my research. At the same time, my broad definition of “community” allows me to focus on understanding the collective context in which groups operate. My broad definition of “participatory” allows me to foster participation and communication by all stakeholders, as is consistent with deliberative policy approaches. While I see family forest owners as the group that policymakers and other stakeholders need to better understand, empathize with, and engage, the meaning of “participatory” in a deliberative policy approach implies that they are still only one of several groups that need to be engaged.

Sources Cited

- Bradbury, H. and P. Reason (2003). Issues and Choice Points for Improving the Quality of Action Research. Minkler, Meredith and Nina Wallerstein Community Based Participatory Research for Health. M. Minkler and N. Wallerstein. San Francisco, Jossey Bass.
- Comstock, D. E. and R. Fox (1993). Participatory Research as Critical Theory: The North Bonneville, USA, Experience. Voices of Change: Participatory Research in the United States and Canada. P. Park, M. Brydon-Miller., B. Hall. and T. Jackson. Westport Conn, Bergin and Garvey.
- Fischer, F. (2000). Citizens, Experts and the Environment. Durham, Duke University Press.
- Fischer, F. (2003). Reframing Public Policy: Discursive Politics and Deliberative Practices. Oxford, Oxford University Press.
- Holling, C. S. (1995). What Barriers? What Bridges? Barriers and bridges to the renewal of ecosystems and institutions. L. H. Gunderson, C. S. Holling and S. S. Light. New York, Columbia University Press.
- Howlett, M. and M. Ramesh (2003). Studying public policy. Policy Cycles and Policy Subsystems. Oxford, Oxford University Press.
- Lincoln, Y. S. and E. G. Guba (1985). Naturalistic Inquiry. Newbury Park, Sage Publications.
- Natural Resource Conservation Service (1996). America's private land: A geography of hope. Washington DC, USDA Natural Resource Conservation Service.
- Oregon Biodiversity Project (1998). Oregon's Living Landscape: Strategies and Opportunities to Conserve Biodiversity. Portland, Oregon, Defenders of Wildlife.
- Park, P. (1993). What is Participatory Research? A Theoretical and Methodological Perspective. Voices of Change: Participatory Research in the United States and Canada. P. Park, M. Brydon-Miller., B. Hall. and T. Jackson. Westport Conn., Bergin and Garvey.
- Rist, R. C. (2000). Influencing the Policy Process with Qualitative Research. Handbook of Qualitative Research. D. a. Lincoln. Thousand Oaks, Sage Publication.
- Schneider, A. and H. Ingram (1990). "Behavioral Assumptions of Policy Tools." Journal of Politics 52(2): 510-.
- Schneider, A. and H. Ingram (1993). "Social Construction of Target Populations: Implications for Politics and Policy." * 87(2): 334-347.
- Schroedel, J. R. and D. R (1998). "Senate Voting and Social Construction of Target Populations: A Study of AIDS Policy Making, 1987-1992." Journal of Health Politics, Policy and Law 23(1): 107-109.
- US General Accounting Office (1994). Endangered Species Act: Information on species protection on non-federal lands. Washington, DC, US General Accounting Office.

Yaffee, S. L. a. J. M. W. (2000). "Making Collaboration Work." Conservation Biology in Practice 1: 17-25.