

AN ABSTRACT OF THE THESIS OF

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Title: (Re)claiming Forestry: A Case Study of Women's Empowerment

Abstract approved:

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Nonindustrial private forest (NIPF) owners control a significant portion of forestland nationwide. Even though women own or manage NIPF lands, we know very little about how women manage forestland and what barriers women face in forest management. In addition, while there are several forestry organizations available to NIPF owners, few are geared specifically to women. Women Owning Woodlands network (WOWnet), an OSU Forestry Extension program for women woodland owners in Western Oregon, proved an ideal community to study women in forestry. I approached my research from a feminist perspective and, using qualitative mixed methods, I interviewed 16 women to learn about women's experiences in forestry, women's roles in forest ownership and management, and women's use of communication and networking in forestry. I examined all of these questions through the theoretical lens of empowerment.

Despite evidence of an overall shift in forestry towards a more gender-inclusive field, gender roles can still be limiting for many women. Some still feel the need to prove their abilities in working in forestry, and some expressed that femininity can be a barrier for women in forestry. However, many women emphasized that they had positive experiences in forestry. Women also play important roles in the ownership and management of their land, particularly as it pertains to current stewardship and land transfer. Women may face unique challenges to forest management. The irregular lifestyle associated with forestry may be especially difficult for women who also run a household. Accessing information poses a barrier as well. Women communicate and network in forest management through involvement with a variety of natural resource-based communities, in general, and WOWnet, in particular. WOWnet, however, is unique from other communities because it is more horizontal, small-group and praxis-based in its approach. The female perspective, both in terms of the kind of information and the delivery of information, also draws many women to WOWnet.

Forestry is dynamic and women are an increasingly important part of forestry, especially when it comes to establishing a vision of good land stewardship. Yet, women's varied roles in the ownership and management of forest land are frequently circumstantial. Women face barriers in accessing forestry knowledge that hinders their achievement of management goals. WOWnet, because it focuses on a female perspective and because it attracts diverse women interested in learning and sharing knowledge about forestry, is an important community for many women in forestry. Recommendations are for extension to shift away from the traditional top-down model of knowledge diffusion to a more holistic approach where university, extension, and

landowners equitably engage in discussions of land management. In sum, WOWnet can empower women and serve as a model for other women's groups seeking to empower women.

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(Re)claiming Forestry:
A Case Study of Women's Empowerment

by
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A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Master of Science

Presented May 27, 2009
Commencement June 2010

Master of Science thesis of Lauren E. Redmore
presented on May 27, 2009.

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Lauren E. Redmore, Author

ACKNOWLEDGMENTS

First and foremost, I extend my gratitude and appreciation to all the women of WOWnet and other women in forestry with whom I interacted. You taught me important lessons about what is and what can be. Thanks especially to the women who participated in my study for your time and your willingness to share parts of your life with me. Also, many thanks to Nicole Strong for introducing me to the world of WOWnet and for making this thesis possible.

I would like to thank my major advisor, Jo Tynon, for helping me throughout the entire graduate school process. I would have been lost without all of your guidance, encouragement, and impeccable use of commas. I would like to thank my committee, Denise Lach and Bryan Tilt for advising me throughout the research process. Also, thanks to John Bliss and Becky Warner for meeting with me on multiple occasions and helping me work through my problems. Thank you Theory Club, especially Erin Kelly, Kas Guillozet, and Jesse Abrams. I could not have done this without your (theoretical) support. Thanks to all of my friends and family, both near and far, for still loving me even after numerous unreturned phone calls and long-lost emails. And, finally, thank you, mom. Your endless support and love has been unquantifiable.

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And the greatest experience I've ever had was falling these big trees, and I worked with these cutters - these three crazy guys. They're awesome! It's just like kids in the woods with chainsaws and they have this huge, monster tree - big, huge, tree - and then two wind up in front of it so they face-cut and back-cut those but not fall them, and they fall this big one, so you have this huge domino effect. And they're like, "Stand here." And the branches fly everywhere and just the feeling of those trees when they hit the ground, it's incredible. I counted a tree that was 130 years old that we fell. (Lisa)

CHAPTER ONE- Introduction

In this chapter, I provide a brief overview of my research topic. I begin by describing the development of WOWnet and then I provide a brief justification for my research. Next I state my research objectives and I conclude with a description of the remainder of this thesis.

Background

More women are becoming primary land managers or owners of family forests through inheritance or purchase (Cloughesy, 2005; Mater, 2005). Despite this notable increase, women continue to face many challenges including gender-biased job opportunities and general lack of support within the forestry community (Pinchot Institute for Conservation, 2006). With help from several female forest owners, an Oregon State University forestry instructor developed Women Owning Woodlands Network (WOWnet) in 2005 with the four-fold goal of: a) recognizing the growing number of women taking a wide array of active woodland management roles, b) raising basic forestry and decision-making skill levels among women woodland managers through hands-on educational opportunities, c) supporting and increasing women's access to forestry-related resources, and d) encouraging communication among Oregon's women woodland managers through the development of statewide and local networks.

WOWnet is an OSU Forestry Extension program for women woodland owners in ten Western Oregon counties clustered into six groups (Clackamas, Coos/Curry, Douglas,

Lane, Linn/Benton, and Marion/Polk/Yamhill) (Figure 1). There are currently about 200 total members.

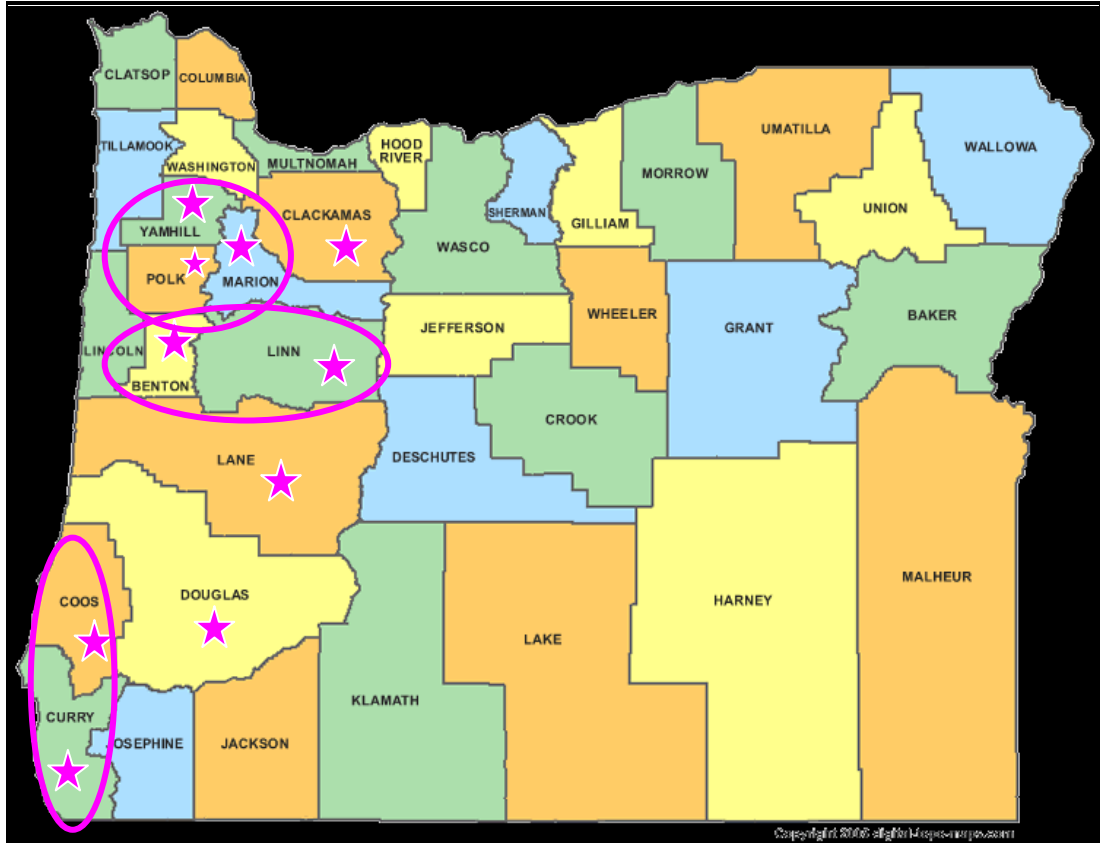


Figure 1. Locations of WOWnet groups. Any interested person may attend a WOWnet meeting in any of these ten starred counties in Western Oregon. County groups are encircled.

I first became acquainted with WOWnet at the Society of American Foresters convention in Portland, OR, in the fall of 2007. When I met the director and learned about the group, I immediately recognized how gender empowerment within a natural resources context has pertinence to global equity issues. I met with the director several times to discuss my interest in WOWnet. I attended a local Benton County WOWnet workshop on woodland thinning where I engaged in conversation with WOWnet members. Here I learned several of the women’s life stories. I learned how they came

to manage their family's land, how they became involved with WOWnet, how they learned skills through WOWnet workshops, and how they taught skills to other WOWnet members. A shared common interest of nature and informed forest management allowed me to initiate communication with WOWnet members and enabled me to sustain relationships that provided me with unique insider perspectives throughout the research process.

Problem statement and justification

The support that WOWnet provides to its members has significant implications for the future of forests. Small-scale nonindustrial private forest (NIPF) ownership is increasing and land parcelization, or ownership subdivision, is becoming an issue of increasing concern (Sampson & DeCoster, 2000; Zhang, Zhang, & Schelhas, 2005). This has management implications because family forest owners control 42% of forestland nationwide (Butler & Leatherberry, 2004). In Oregon, 16% of forestland is NIPF owned, making the “ecological, social and economic impact... disproportionately large” (Bliss, 2003, p. 1). The Family Forest Landowner Survey, contracted by Oregon Forest Resources Institute and the Oregon Department of Forestry in 2005, estimated that women manage 40% of these forests (Cloughesy, 2005). We know that women and men landowners differ in several major areas including managerial objectives, initial management knowledge-base, and ultimate desired outcomes (Pinchot Institute for Conservation, 2006). For example, while 63% of male landowners want income from their land, only 37% of women want the same (Mater, 2005). Additionally, more female than male landowners cite lack of knowledge as a significant barrier to owning a family forest (Mater, 2005).

Fewer female landowners than male landowners were involved in management of their family forestland prior to land inheritance (Pinchot Institute for Conservation, 2006), suggesting that knowledge transfer is gendered. This means that women face barriers in accessing the same forestry knowledge as men. Additionally, despite the availability of different forestry organizations to all landowners, women are not as involved as men are in these organizations. For example, in 1995 only 10% of Society of American Foresters members were women (Kuhns, Bragg & Blahna, 2002).

Oregon's Family Forest Landowner Survey (Cloughesy, 2005) emphasized a need to develop management programs for women. WOWnet, and comparable programs in Alabama (Women in Land Ownership, WiLO) and Maine (Women and the Woods Program), may offer a panacea for women who feel alienated in male-dominated forestry groups.

Purpose of study and research questions

Little is known about women in forest management groups in the developed world, so it is appropriate that my research of WOWnet members was an exploratory study to address some of the knowledge gaps. My research questions, within the context of WOWnet, were:

- 1) What are the lived experiences of women in forest ownership and management?
- 2) How do women perceive their role as forest landowners and managers? and

- 3) How do female forest owners and managers use communication and networking in forest management?

To help address these questions, I examined theoretical concepts of empowerment and how they may or may not help explain this particular phenomenon.

Thesis overview

I begin each chapter with a quote from different interviewees that illustrates women's experiences in forestry: these are stories that might otherwise be untold. I use each woman's given pseudonym to retain confidentiality. In chapter two I introduce my feminist approach as the framework for the entirety of my research. I then review the literature on NIPF ownership, organizational membership of forest landowners, and women in land management and explore how theoretical conceptions of empowerment provide a way to understand this phenomenon. In chapter three I discuss my use of qualitative methods and explain how these methods helped frame and inform the direction of my research. I introduce and discuss my key findings in chapter four, and I explore what my findings mean, suggest policy implications, explore women's empowerment, and suggest ideas for future research in chapter five.

And then the wind came and it created slides... so actually we had a road that was a straight drop-off and it started washing, eating underneath and we had to take everything out of there. And that's scary to me. You're on a piece of heavy equipment on a logging road in the middle of the forest where nobody knows where you're at and you've got this big piece of heavy equipment and you're digging underneath you, virtually, to get everything to where it's solid when you've got some sort of rock bed or something. (Brianna)

CHAPTER TWO- Literature review

I begin this chapter with an introduction to the feminist approach I took because it served as the overarching framework for this research. I then review the literature on NIPF ownership, the development of forestry support organizations, and gender in land management. I also introduce and critically review theories of empowerment that provided a way to understand this phenomenon.

Feminist approach

Throughout my study I relied on a critical feminist approach because, although gender constructs are problematic (Alcoff, 1988), it is important to recognize that women's experiences and knowledge are unique from men's (Warner, 1999). Olesen (1994) stated that women have long been absent or marginalized from research (p. 162-163) and she recommended that approaching research from the feminist standpoint can help address the lack of research that holistically values women's experiences. In a study on empowerment of women involved with a dairy cooperative in India, Papa, Singhal, Ghanekar, and Papa (2000) relied on standpoint feminism because of its consideration for the multiple viewpoints of marginalized groups. I acknowledge that standpoint feminist approaches vary within different cultural and social contexts, particularly between the developed and the developing world, and I recognize the need for these multiple approaches. Nevertheless, I chose to use a general standpoint feminist approach for my research.

As Jaggar (2004) explained, "the concept of women's standpoint [theory] presupposes that all knowledge reflects the interests and values of specific social groups" (p. 61).

Furthermore, knowledge and experience reflect one's position in society (Smith, 2004, p. 30). Harding (1993) argued that infusing standpoint feminism into research by looking at women's lives reveals a more accurate account of women's lives and the broader society (p. 56). In this way, knowledge and experience of a particular social group can only be accessed from within. Although standpoint feminism has been criticized for essentializing the category of "women" by forcing upon them a singular standpoint (i.e. hooks, 2004; Weeks, 2004), standpoint feminism served as a building block to enable me, within my own research, to embrace and value multiple perspectives and diverse voices. Recognizing that all knowledge is socially situated, I embedded this sort of feminist perspective throughout my research with the hope that it "will not merely amount to women participating in greater numbers in the existing practice of science and knowledge, but it will change the very nature of these activities and their self-understanding" (Narayan, 2004, p. 213).

Small-scale nonindustrial private forest ownership

Because my research is on a particular subsection of Oregon's NIPF owners, it is important to examine the demographics and values of NIPF owners and understand their management motivations. Small-scale forest owners offer unique and important ecological, social, and economic benefits to communities (Bliss & Kelly, 2008).

Family forest owners are diverse and manage their forests in ways that reflect not only market-based economies and overall management capacity, but also ethnic background, "knowledge, beliefs, values, and attitudes" (Bliss, 1992, p. 71). NIPF owners are well-educated and generally curious (Bliss & Kelly, 2008). They may be more likely than private industry to invest in alternative management practices and to

experiment with alternative markets. Family forest owners are invested in their land and their community in ways that large-scale industrial owners are not. NIPF management practices may vary on a single property, creating “within-ownership” management diversity (Bliss & Kelly, 2008). Additionally, NIPF owners’ primary motivations for land ownership are “aesthetics or nature,” “privacy,” “family legacy,” “hunting or other recreation,” “land investment,” and “timber production” (Butler & Leatherberry, 2004), supporting Bliss and Kelly’s (2008) contention that NIPF owners have diverse and varied reasons for land ownership.

NIPF owners have been criticized by professional foresters as “irrational” and having “weak economic incentive... to invest in forest management” (Wolf & Hufnagl-Eichiner, 2007, p. 677). This “NIPF problem” (Jones, Luloff, & Finley, 1995) may relate to economies of scale. Specifically, the smaller size of NIPF land is generally associated with lower economic efficiency than what is possible with larger industrial private forest holdings (Zhang, Zhang, & Schelhas, 2005). However, NIPF land has multiple uses, ranging from recreation to nature conservation, and owners may not intend to efficiently extract traditional market goods and services. In this sense, small-scale NIPF owners “behave more like forestland consumers than timber producers” (Zhang & Zhang, 2004, p. 1). Jones, Luloff, and Finley (1995) suggested that the “myth” of a so-called “NIPF problem” is driven by the forester’s inability to “truly understand the NIPF owner” (p. 41). This view may change once it is recognized how important NIPF lands are “for their contribution to the landscape fabric and to ecological health” (Erickson, Ryan, & De Young, 2002, p. 101).

Good land stewardship is associated with active forest management, and one indicator of active management may be the development and implementation of a management plan (Elwood, Hansen, & Oester, 2003). Management plans are considered important because they enable owners to identify goals and prioritize objectives, making goal attainment more measurable and more likely. While only about 5% of NIPF owners nationwide are estimated to have a management plan, Elwood, Hansen, and Oester (2003) found that those who do see more positive results on their land. Gan and Kedebe (2005) also pointed out that there is a link between NIPF owners who have a management plan and those who seek technical and financial assistance. Elwood, Hansen, and Oester (2003) recommended improved education and outreach for NIPF owners to improve stewardship of their land.

The development and use of a management plan to improve stewardship may be related to the historically top-down approach taken by Cooperative Extension Service (extension). The history of extension in the United States began with the 1914 Smith-Lever Act (Barden, Jones, & Biles, 1996). This Act initiated extension by applying university research to rural communities. The Clarke-McNary Act of 1924 extended the Cooperative Extension Service to forestry. By 1937, the Norris-Doxey Cooperative Farm Forestry Act resulted in on-site demonstrations and low-cost forest stocking. Currently, extension works on the ground at the county level with the help of county agents who are supported by state specialists who are usually university-affiliated extension foresters (Barden, Jones, & Biles, 1996).

Extension agents are critical in encouraging the adoption of innovations at the local level (Guerin, 1999). Adoption of innovation theory is based on the concept that thoughts are infectious and that some actors are more susceptible than others (Haggith et al., 2003). The adoption of new or innovative knowledge results from key actors called innovators, who actively seek new knowledge. Other roles, such as those shown in Figure 2, range from early adopters, who are the first to adopt new knowledge, to laggards, who are the last to adopt an innovation (Rogers, 1983). Within forestry, it has been suggested that “the challenges and rewards of small-scale forest management seem to attract a disproportionate share of ‘innovators’ and ‘early adopters’” (Bliss and Kelly, 2008, p. 100).



Figure 2. An adoption of innovation continuum. To the far right are innovators who create new technologies. Laggards, to the far left, are the last to adopt new technologies. Adoption roles are flexible and dependent on various factors.

Innovation adoption is influenced by such factors as socio-demographic characteristics (e.g., gender, education), innovation complexity, and societal influence. Vanclay (2004) recommends that, instead of relying on the overly simplistic adoption continuum, extension agents should classify farmers by “subcultural groupings representing a conglomerate of social and structural variables” (p. 214).

As Sachs (1996) pointed out, “Since World War II, the U.S. Cooperative Extension Service and farm journalists encouraged families to consider their farms as multigenerational enterprises” (p. 149) and the Service specifically emphasized the

importance of transferring property to the sons. Barden, Jones and Biles (1996) called for a reassessment of extension's goals because of shifting ownership patterns, including ownership by women, resulting in changing management practices and goals. Vanclay (2004) said agriculture extension needs to recognize social diversity, instead of focusing on the physical or structural differences of farms. For example, Gan and Kedebe (2005) found that African-American NIPF owners in Alabama's Black Belt prefer personal outreach over mass-marketing approaches. If extension focuses on broad measures of heterogeneity and recognizes management diversity of NIPF owners, it may be more effective in creating and implementing programs that benefit landowners.

In addition to focusing on what extension can provide to NIPF owners, it is critical to examine how other (state or private) forestry management organizations work. Much of the literature available on NIPF organizations focuses on cooperative models (Blinn, Jakes, & Sakai, 2007; Kittredge, 2005; Rickenbach, Zeuli, & Sturgess-Cleek, 2005; Wolf & Hufnagl-Eichiner, 2007), but lessons learned may be applicable to other organizational models. Rickenbach, Zeuli, and Sturgess-Cleek (2005) found that membership in a nontraditional, cooperative NIPF owner group in Wisconsin, particularly for new ex-urbanite landowners, was partly driven by distrust of contracted timber harvesters, bad experiences with state Department of Natural Resource foresters with heavy-handed approaches, and incomprehensible prescriptions for land management. Membership in this NIPF owner group allowed the forest owners to take control of their own forest management. The authors concluded that the increase in ex-urban amenity ownership means that traditional forestry organizations

are unable to reach all populations of NIPF owners. The cooperative, member-driven model may be important for this population because their reasons for ownership and their forest management practices are nontraditional and diverse.

Separate from cooperatives are assistance programs and forestry organizations, such as the American Tree Farm System, the Society of American Foresters, and the National Woodland Owners Association. They offer services ranging from educational information, to technical assistance, to networking with other landowners and contractors. Traditionally, forest landowners were treated as individual actors; now some scientists are recognizing the importance of social networks in guiding management decisions (Schelhas, Zabawa, & Molnar, 2003). Social relationships and social networks, such as those facilitated by forestry organizations, are recognized as increasingly important, particularly as private landholdings in the US grow in number (Schaaf, Broussard, & Hoover, 2004). These organizations have been called upon to expand their programming to offer more diverse, nontraditional management support activities (Erickson, Ryan, and De Young, 2002).

Evidence suggests that members of forestry organizations differ from nonmembers. Rickenbach, Guries, and Schmoldt (2006) found that Wisconsin NIPF owners who are also members of forest organizations perceive the same barriers and benefits to forest management as NIPF nonmembers. However, members were more active in forest management than nonmembers and were more likely to cooperate with other landowners. While this suggests that membership to forestry organizations is related to management behavior, Rickenbach, Zeuli, and Sturgess-Cleek (2005) pointed out the

difference between “joiners” and “non-joiners”: interest in cooperation may “simply reflect a desire to be more connected” (p. 99).

Gender in land management

While there is a plethora of information on women and land management in developing nations, there are few studies on the role of gender in forest management in developed nations (Warren, 2003). This lack of available information is problematic, particularly in the US where women own a large proportion of private forestland. According to Warren (2003), “discounting the impact of traditionally underserved forest landowners, such as women, ethnic and racial minorities, or small acreage landowners is a strategic error” (p. 95). There is the potential to help partially correct this “strategic error” by giving voice to women landowners and managers.

Lidestav and Ekstrom (2000) found gender differences in the management behavior of Swedish female and male forest owners. They found gender differences in harvesting frequency; that is, women were more likely than men to have greater standing timber volume. Furthermore, sowing or planting practices were greater among women owners, leading the researchers to conclude that “female forest owners are more inclined to regenerate their holdings” (p. 385). In another study, Uliczka, Angelstam, Jansson, and Bro (2004) found that women had less forestry education than men and were less active in management. However, these researchers noted that younger women with high levels of formal education held more positive attitudes towards forest conservation. Scandinavian women also tended to combine farming and forestry less often than male forest owners, and women NIPF owners were younger than their

male counterparts (Lidestav, 1998). These results, however, must be considered carefully because co-ownership or management of land by female and male partners has historically been classified as male-owned (Effland, Rogers, & Grim, 1993) and introduces challenges to fully understanding the female NIPF owner (Lidestav, 1998) or changes in land ownership and management.

In a study cited by Sachs (1996), 20 women married to loggers in an Oregon timber town were interviewed. These women were politically involved in state timber advocacy groups and discussed the impact of urban centers on the logging industry. These women believed that because they are the ones who work in the forest, they are the “true” environmentalists, perhaps because they are physically closer to nature or natural systems. These women supported the protection of timber harvest and their economic livelihood over environmental protection. This study, however, focused on women’s roles as *wives* of loggers, emphasizing the idea that women’s roles are not *in the forest* and are essentially indirectly associated with forestry.

In addition to gender differences in management approaches, it is essential to understand the role that gender plays in intergenerational knowledge transfer because access to information in an agricultural setting is gender-biased. In Australian farm families, women “are pressured both to maintain the traditional division of labor and decision making and to negotiate the areas of personal and public agency for ‘survival’ of the resource management strategies” (Rickson & Daniels, 1999, pp. 234-235). Brandth and Haugen (2000) noted that historically, in Norway, transfer of forestry knowledge and skills tended to occur almost exclusively from father to son, and when

women (daughters or wives) helped with work in the forest, it was seldom talked about due to the stigma of women working outside the home. Vanclay (2004) also stated that “power imbalances and gender-blindness” (p. 215) have hidden the major role that women play in farm management. This means that women must concurrently engage in traditional identities and in farm management. Nevertheless, women are frequently ignored during the intergenerational knowledge transfer process and they perceive their questions as insignificant compared to their male counterparts (Leckie, 1996). The literature appears to support the idea that women are marginalized in these natural resource domains.

Access to knowledge within families may mirror cultural mores for knowledge transfer. In community forestry groups in Nepal, women represent a very small percentage of membership and they are generally excluded from leadership positions. “Membership apart, when women do attend meetings, they seldom speak up, and when they do speak, their opinions are given little weight” (Agarwal, 2000, p. 286). A male-dominated forestry tends to exclude women. One way to combat gender issues may be to “create an alternate arena of discourse” (Brandth & Haugen, 1998, p. 429), where discourse is defined as any social interaction. Brandth and Haugen (1998) explored how women in farm forestry in Norway created a network focused on “building networks among members, working to change attitudes to women in forestry, and to obtain equal opportunity” (p. 429). In a follow-up study, Brandth, Follo, and Haugen (2004) found that the network faced the dilemma of whether to make gender more visible, by emphasizing the uniqueness of women in forestry, or to make gender irrelevant. “The dilemma is that when focusing on women, women are

made conspicuous and particular, while the objective is to allow women to be a part of the universal category” (p. 471). The authors concluded that this network both highlighted and de-emphasized gender, allowing female foresters to reclaim certain aspects of “masculine” identity. However, Brandth and Haugen (1998) pointed out that little had actually changed for women in the forestry industry since the creation of the network.

Theoretical framework

My theoretical framework provided a context in which to further develop and relate the literature, and extrapolate to my own research. I explored theories of empowerment because they provide a way to help understand how and why this specific phenomenon is occurring. I started my literature review prior to conducting my research and I continued to review the literature concurrently with data collection and analysis. This allowed me to be creative and flexible in my analysis of the data (Tynon, 1994).

In choosing empowerment theory as my primary theoretical lens, I discovered that there is no easy way to understand it. As Kabeer (1999) explained,

The notion of empowerment has been used in a bewildering variety of ways, from the mundane to the profound, from the particular to the very general. Empowerment is seen to occur at a number of different levels, to cover a range of different dimensions and to materialize through a variety of different processes (p. 2).

There is a vast amount of literature on empowerment theory and I discuss some of it in this section. I mainly drew upon feminist and post-modernist theory.

It has been argued that it may not be possible to define or measure empowerment, and some feminists believe that “the value of the concept lies precisely in its ‘fuzziness’” (Kabeer, 2000, p. 28). But when theorists start to break down the term into components, it becomes more comprehensible or at least less abstract. Rappaport (1984) explained that empowerment provides a sense of control by improving individual or societal structures that once fostered powerlessness. Here, empowerment contains elements of both process and outcome. Carr (2003) explored how empowerment has been described as both a process and as an outcome. She believed that empowerment is a process because it is cyclical in nature, through which power is constantly shifting. Kieffer (1984) specifically called empowerment an active, transformative process attained through practice and experiential learning. Carr (2003) criticized Kieffer for taking a developmental model approach, whereby the *individual*, removed from any cultural or social influences, develops from “infancy” to “adulthood” in four years. She saw this as paternalistic and linear, instead of cyclical and interdependent on cultural and social factors. Instead, the author highlighted theories of empowerment that rely on subprocesses or stages that are cyclical in nature.

Yoder and Kahn (1992) proposed that empowerment occurs at an individual level: they noted that power-to, or empowerment of an individual, “has to do with the control one feels over one’s own thoughts, feelings, and behaviors” (p. 384). They specified, however, that this is in direct contrast to power-over, or domination, which works on four levels, specifically societal, organizational, interpersonal, and individual. The authors concluded that, in research, it is essential to clarify the

differences between power-to and power-over, and it is important to explore and understand the power-over that occurs across levels. They warned that, “it seems myopic to discuss individual empowerment when the root of much gender-based oppression is societal” (p. 386).

Fawcett, Seekins, Whang, Muiu, and de Balcazar (1984) believed that empowerment can occur on the community level, whereby the ability of a community to manipulate the preexisting structure through the use of problem solving skills, the ability to lead groups and present issues, and the ability to control the consequences of critical actors leads to community empowerment. Social cohesion, or community involvement and general trust among community members, is an important component that leads to community empowerment (Speer, Jackson, & Peterson, 2001). Peterson, Lowe, Aquilino, and Schneider (2005) agreed, noting that social cohesion “considers community participation in the context of relational concepts such as shared emotional commitment and reciprocity among community members” (p. 235).

Kabeer (1999) suggested that Bourdieu’s concept of doxa, “an uncontested acceptance of the daily lifeworld” (Bourdieu & Wacquant, 1992, p. 73) or a reality that is taken for granted, provides another way to examine the possibility of empowerment. Acceptance of a realized doxa, particularly among the disempowered, “represents the most radical form of acceptance of the world” (Bourdieu & Wacquant, 1992, p. 74). Kabeer (1999) argued that, “The passage from doxa to discourse, a more critical consciousness, only becomes possible when *competing* ways of ‘being and doing’ become available as material and cultural possibilities” (p. 441). She further stated that

it is the possibility of having choices that enables people to question social order and to see its “underlying arbitrariness” (p. 441). It is agency, or individual conscious choice of action, that can lead to empowerment through the awakening to the existence of doxa (Kabeer, 1999).

Kabeer (2000) proposed that while power can be defined as having the ability to make effective, active choices, disempowerment implies that one was denied the opportunity to choose. Kabeer (2000) further defined choice as “the possibility of alternatives” (p. 437) and stated that it is this shift from being disempowered to gaining the ability to make choices that defines empowerment. Alsop and Heinsohn (2005) noted that the degree of empowerment of a person or group is directly affected by two factors: agency and opportunity structure. Agency refers to an individual’s ability to understand her choices and make a meaningful decision, while opportunity structure refers to “formal and informal” interactions (that may include formal groups) that influence an individual (Alsop & Heinsohn, 2005, p. 6). Checker (2005) emphasized that empowerment of marginalized communities can occur through the availability and access to information.

Gender is important to consider in processes of empowerment. Peterson, Lowe, Aquilino, and Schneider (2005) found that empowered women tend to participate in organizations differently than empowered men. Specifically, women are more active within organizations and in organizational decision making, whereas men tend to serve more as external representatives of the organization. Peterson, Lowe, Aquilino, and Schneider (2005) attributed this to “women’s historically underprivileged status

[that] may have required them to develop a deeper understanding of the value of close interpersonal relationships... needed in maneuvering through difficult sociopolitical conditions” (p. 241). Carr (2003) drew on the work of Freire (1970/1993) and others to examine the importance of *conscientization*, or the interaction within a group that raises consciousness to uncover the cause of powerlessness by shedding light on individual experiences. It is this process, Carr (2003) argued, that is essential for women to expand their understanding of the world to achieve an alternate position of power.

Agarwal (2000) emphasized the importance of social networks, especially for women, in building social capital, reinforcing solidarity, and creating the possibility for collective action. Brandth and Haugen (1998) illustrated how women’s social networks in the field of forestry can generate empowerment through shifting dominant discourse. Brandth, Follo, and Haugen (2004) examined the importance of women’s collective action, what they define as “self-organizing without men” (p. 466), in a women’s forestry organization in Norway. Women’s collective action, they argued, “provides mobilization of resources and an increased opportunity to improve their conditions” (p. 466).

The concept of a social network was developed from social structure theory (Radcliffe-Brown, 1977), where social structure is defined as a complex network of social relations or localized, individual interactions. A social network depends on social identity, social support (Maguire, 1983), and resource and information exchange (Haythornthwaite, 1996). Furthermore, “a *social network* is the pattern of friendship,

advice, communication, or support which exists among the members of a social system” (Valente, 1996, p. 70) (emphasis in original). Flora (1998) noted that networks work most effectively when the community is flexible and diverse (p. 493). Effective information exchange or communication can bring individuals or groups together (Rogers, 1983), and social networks that enable and are enabled by good communication can serve as tools for empowerment. I did not look specifically at social networks, but this literature is of some relevance because of the importance of social networking possibilities found within different forestry and other natural resource-based communities.

Summary

I began this chapter explaining that a feminist perspective helped me frame my research and critically examine the available literature. I also explored what we already know about NIPF ownership and the ways in which NIPF owners contribute to the health of our forests and social systems. Additionally, I relied on the available literature on women in natural resource management within developed countries to better understand what we know and where the knowledge gaps exist. Finally, I reviewed different theories of empowerment because they provide a way to look at and understand this phenomenon.

This literature helped me contextualize my findings and conclusions. Specifically, the literature on NIPF owners and gender in land management guided my understanding and analysis of the lived experiences of women in land management and the roles of women in forest ownership and management. The literature on forestry communities,

gender in land management, and empowerment theories helped guide me in exploring women's use of communication and networking.

*'Cause chainsaws are designed for a guy with shoulders and women,
the sense of gravity is a whole lot lower, so I want to talk with
[WOWnet] about running a chainsaw. I had one - I had a huge
McCullough, half my life ago 'cause I couldn't bear to buy one that
was one of those little dinky ones. I had all these big logger guy friends
and I didn't want to be caught with this tiny girl chainsaw. (Anna)*

CHAPTER THREE- Methods

In this chapter, I discuss the methodological tools I used throughout the research process. I gathered my data using multiple methods: 1) participant observation, 2) community collaboration, and 3) semi-structured interviews. This allowed me to understand and delineate the boundaries of my research problem by approaching it from different angles. Multiple methods also helped validate my research findings. I also discuss my methods for analyzing the data and state my methodological assumptions and limitations.

An ethnographic case study

In order to learn about the experiences of WOWnet members, I relied on qualitative methods because they provide richer, in-depth narratives of social influences on management practices (Bliss & Martin, 1989; Sayre, 2004). Qualitative methods, additionally, enable researchers to examine and explore the meaning and context of experience (Driscoll and McFarland, 1989), and are particularly important in exploratory research.

Ethnographies provide an in-depth look at a particular phenomenon and use a mixed method approach whereby the researcher is engaged in the community in various capacities (Reinharz, 1992). Wolcott (2005) described the ethnographer as one “who composes a picture reflecting the lifeway of some group” (p. 16), which means that the ethnography is the resulting composition or description of a particular community. My community is not defined by a shared physical space, but is rather a community of shared experiences, and the true essence of the community can only be understood

through experiencing and sharing. Furthermore, reflexivity, or the researcher's critical examination of her own position within the research, has become an integral component of ethnographic methodology lending validity to ethnographic research (see Altheide & Johnson, 1994). I examined the research process through reflexivity in chapter five.

In conjunction with my use of ethnographic methods, I also relied on a case study approach. A case study approach is useful in learning about communities like WOWnet (Castellanet & Jordan, 2002; Hamel, Dufour, & Fortin, 1993) because a case study provides a deeper understanding of the workings of an organization or group (Yin, 1993). A case study is an examination of a particular moment in space and time, and is dependent on a unique set of circumstances and individuals. This means that each case is unique and cannot be replicated across boundaries, but may instead be compared across space and time, recognizing the individuality of each case (Reinharz, 1992). Specifically, because I want to better understand this unique phenomenon, this is an intrinsic case (Stake, 1994) of women landowners or managers reclaiming a masculine forestry. By exploring women's experiences in forestry, a traditionally masculine domain, my research gives voice to women's unique roles in forestry. Shedding light on this case and understanding it contextually and theoretically enables us to better comprehend this social phenomenon.

Research techniques

There are four kinds of observer identities that the researcher can assume while doing research within a community (Figure 3). A researcher who is fully concealed and one

whom the community believes is one of their own is said to assume the “complete participant” role. Conversely, the “complete observer” role is one where the researcher observes the community without any direct engagement within the community.

Participant observation (or “participant as observer” from Figure 3) is a key facet of ethnographic research that enables the researcher to understand the culture and language of a particular community by becoming a member of the community. As a technique, participant observation relies on the dual perspectives of insider/outsider and the researcher takes extensive notes that will help validate other findings (Denzin, 1978) and direct the research.

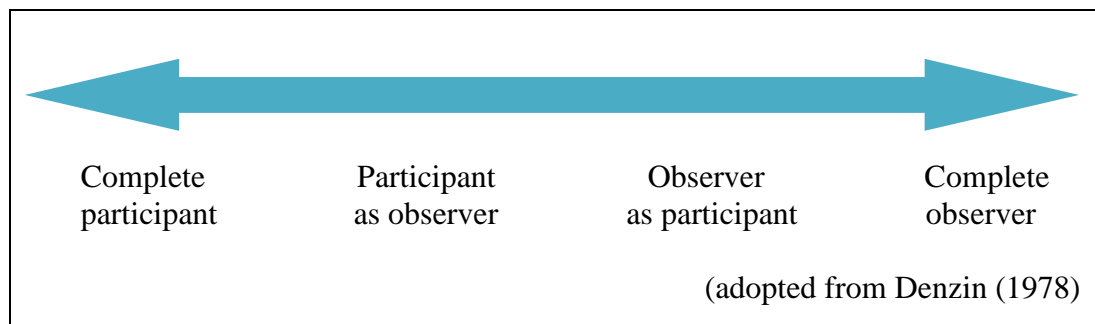


Figure 3. The roles a researcher may assume within the community during research. These range from complete participant, on the far left, where the researcher is fully immersed in the community, to complete observer, on the far right, where the researcher does not interact with the community.

Additionally, the dual roles of insider/outsider serve as an important tool to guide the researcher’s relationship with the community and to ultimately learn more about the community (Bernard, 2006), both in culture and vocabulary (Rubin & Rubin, 1995).

In my role as a participant observer, I attended nine WOWnet meetings (Table 1) where I participated as a member and observed as a researcher. In addition to taking part in the meetings and engaging with WOWnet members as a fellow WOWnet member, I also carefully observed and recorded interactions and noted the kind of

information that was passed through meetings. Participant observation and analysis of my field notes helped me validate my interview findings.

Table 1. Meetings, tours, and workshops attended during my research.

Organization	Meeting date	Meeting topic/purpose
WOWnet	December 1, 2007	Thinning on the ground
WOWnet	January 17, 2008	Tree planting
WOWnet	January 26, 2008	Tool sharpening
WOWnet	April 5, 2008	Oak woodland management
WOWnet	April 24, 2008	Woodland wildflowers
Trout Mountain Forestry	May 8, 2008	Field tour: Beazell Memorial Forest
WOWnet	May 21, 2008	Tool sharpening and management
WOWnet	June 7, 2008	How are log values determined? How are logs marketed?
OSWA	September 6, 2008	The Oakes Family Full Spectrum Forestry Field Tour
OSU Forestry Extension	March 13, 2009	Diversifying income opportunities
WOWnet	March 14, 2009	Tree planting
WOWnet	April 18, 2009	Practicing Practical Forestry
Forests Today and Forever	April 29, 2009	Forest Field Days

In addition to my participation as part of the WOWnet community, several WOWnet members were engaged in the research in a process known as participatory research (Reinharz, 1992). There are different degrees of participatory research, ranging from research that is originated and carried out by the community to research that is originated by the researcher and guided by local knowledge of community members. Participatory research enables both the researcher and the participants to engage in action-driven, purposeful research. Aside from serving as an equalizing mechanism, participatory research is a more emergent process than nonparticipatory research (Greenwood, Whyte & Harkavy, 1993) and can be more defensible (Dyrness, 2008) because everyone involved in the process can verify the research findings (Castellanet

& Jordan, 2002). Furthermore, because the community is involved throughout the research process, there is greater likelihood that the reality of the case study will be more accurately reflected. Here, I relied on a collaborative team of WOWnet members to help me in the participatory research process. Their key role occurred at the early stage of research with the development of the interview questions, explained below.

Participatory research team selection

I selected women for my participatory research team from the WOWnet participant database. I based my initial selection criteria on recommendations from the WOWnet director, who pointed out members who might be willing to be engaged in the process. I then called each potential team member, discussed my project with them, and asked if they were willing and able to participate as a member of a collaborative team. Six women agreed to participate. The team meeting was held August 16th, 2008, on Oregon State University Campus. Three of the six participatory research team members attended the meeting and all actively contributed.

Because of my own position as a student, new to the field of family forestry and new to Oregon, my involvement with WOWnet and forestry is in a different capacity than most WOWnet members. While the literature on NIPF ownership and women's groups helped me, I felt constrained in my own ability to develop appropriate interview questions to answer my research questions because of the limited literature on women in forest management and ownership. The participatory research team members have insider, *a priori* knowledge and know what interview questions are

important to ask to help contextualize, frame, and understand NIPF ownership and management.

My meeting with the participatory research team lasted approximately two hours and we generated 44 different interview questions. I sorted the proposed interview questions according to which research question they could best help address. For example, the question “do you live on-site or off-site” was a general demographic question that could also help serve as a prompt under the broader question “tell me about your property.” I selected ten interview questions, each with subquestions, that were generated by the participatory research team and added four additional questions that I developed independently. My interview questions consisted of 14 total questions (Appendix A). These interview questions helped me guide the conversation during the interviews.

Interviewee selection

Bernard (2006) says that purposive sampling works best in understanding cultural data, or shared cultural experiences, while random sampling works best to understand individual attribute data, like population characteristics. Qualitative studies generally rely on purposive sampling, whereby each informant is selected for their knowledge about a particular subject because the intent is to focus on “information richness, not representativeness” (Zyzanski, McWhinney, Blake, Crabtree, & Miller, 1992, p. 234).

When approaching my sampling method design, I faced a dilemma: even though use of purposive sampling techniques could help me locate women with specific stories about their involvement in forestry, it may not have enabled me to sufficiently answer

all of my research questions. Ethnographic researchers rarely enter into their community with a physical list of who is “in” the community. The use of purposive sampling methods, in this case, is pivotal in pointing out known participants who are willing to share information. The WOWnet database of members, obtained from OSU extension in July, 2008, provided me with the unique opportunity to randomly select participants from the community. This allowed me to access stories both information rich and more representative of the broader community. Furthermore, a random sample was helpful in illustrating some of the population parameters, which could guide future research.

Interview methods

I randomly selected names from the WOWnet database of members from all counties (Figure 1). I then called each woman to schedule a face-to-face interview. If I was unable to reach someone after three or more attempts, I replaced her name with another name from the list. Interviews were conducted from September 8, 2008, until October 14, 2008. Using the questions developed with the participatory research team, I used a semi-structured interview approach to help guide the conversations because “interviewing is most consistent with people’s ability to make meaning through language” (Seidman, 1998, p. 7). Interview research, according to Reinharz (1992), is inclusive and exploratory. Relying on “open, loosely structured” (Rubin & Rubin, 1995, p. 37) research methods and emphasizing reflexivity was essential to answering my research questions.

I stopped after 16 interviews because it was clear to me that I had reached the point of “saturation” when few new themes emerged (Guest, Bunce, & Johnson, 2006) and the bigger story became clear. I digitally recorded all but one interview. Recorded interviews lasted from 33 minutes to 87 minutes, with an average interview time of about an hour. All interviews occurred in Western Oregon at a location convenient for the interviewee.

I transcribed all the interviews using Microsoft Word and Express Scribe (2008). I sent each interviewee her transcription and requested that she check the transcript for accuracy and clarity. This member check (Janesick, 1994, p. 216) allowed me to make sure that each interviewee was comfortable with the accuracy of the transcript. I received comments back from six interviewees. Most of the comments dealt with grammatical details, but a few were clarification comments, which helped me better understand specifics of the story.

Bernard (2006) discussed the use of identifying and isolating themes from narrative data and then coding the data according to those themes. The use of coding “turns free-flowing texts into a set of nominal variables” (p. 492) to help the qualitative researcher better understand the story. While I mentally sorted the information from the beginning, I recognized the importance of being analytically methodical. I performed two levels of analysis, following Charmaz’s (2006) suggested coding techniques for constructing grounded theory. Charmaz (2006) noted that, “Grounded theory coding generates the bones of your analysis. Theoretical integration will assemble these bones into a working skeleton” (p. 45).

In my first level of analysis, I used *in vivo* coding which is a form of inductive or “open” coding (Bernard, 2006). Specifically, I read through each transcription and, using Weft QDA (2008), a free online qualitative analysis software program, I developed my initial themes directly from the data. Charmaz (2006) recommended that, in the primary phase of analysis, the researcher develop themes that “stick closely to the data” (p. 47). She proposed that the researcher classify and label every action occurring within the data. Specifically, I pulled every action phrase directly out of each transcript and labeled each accordingly. These became my initial themes. Figure 4 shows, using an example from one of my interviews, how I coded during the primary phase.

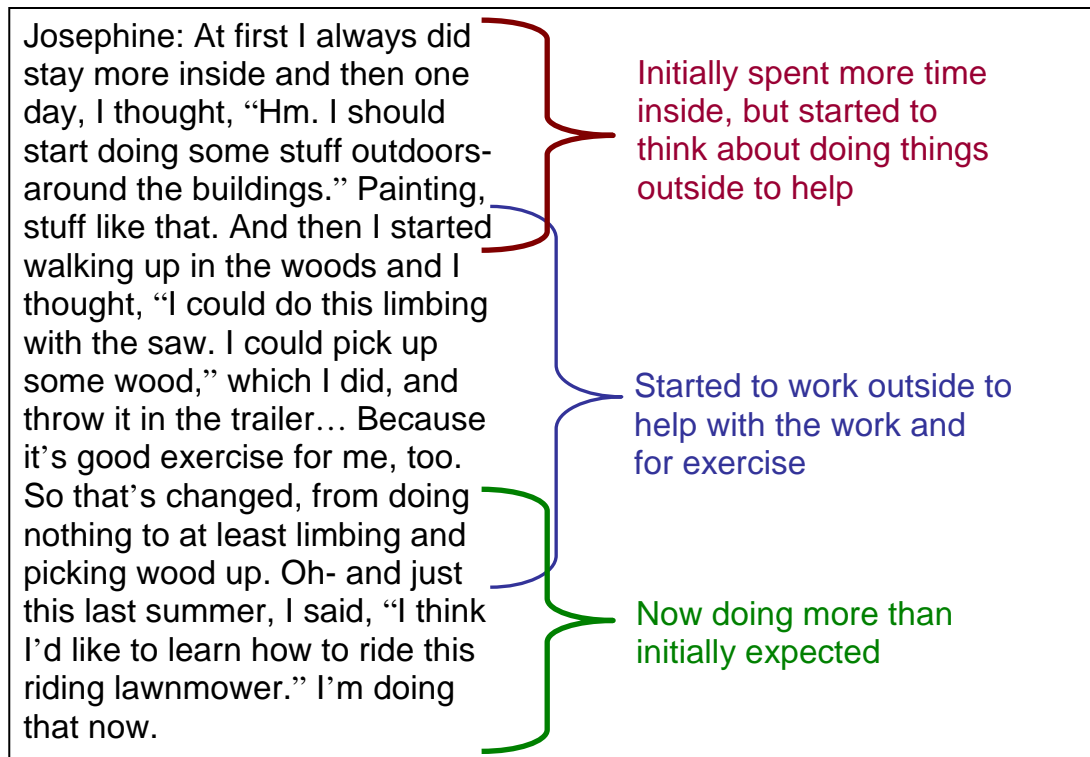


Figure 4. I directly pulled phrases out of the interview text to create my initial codes. Here is an example from my interview with Josephine.

In my second level of analysis, I examined these themes contextually and compared them with other themes. Charmaz (2006) called this focused coding and explained that it is more “directive, selective and conceptual” (p. 57) than the initial coding phase. In this phase I decided on the most significant themes according to the initial coding phase and re-worked them into broader categories which I then used to re-code my transcripts. This coding phase also helped me check the accuracy of my initial themes (Charmaz, 2006, p. 57). Figure 5 shows how I used my initial codes to develop broader categories to then re-code my transcripts.

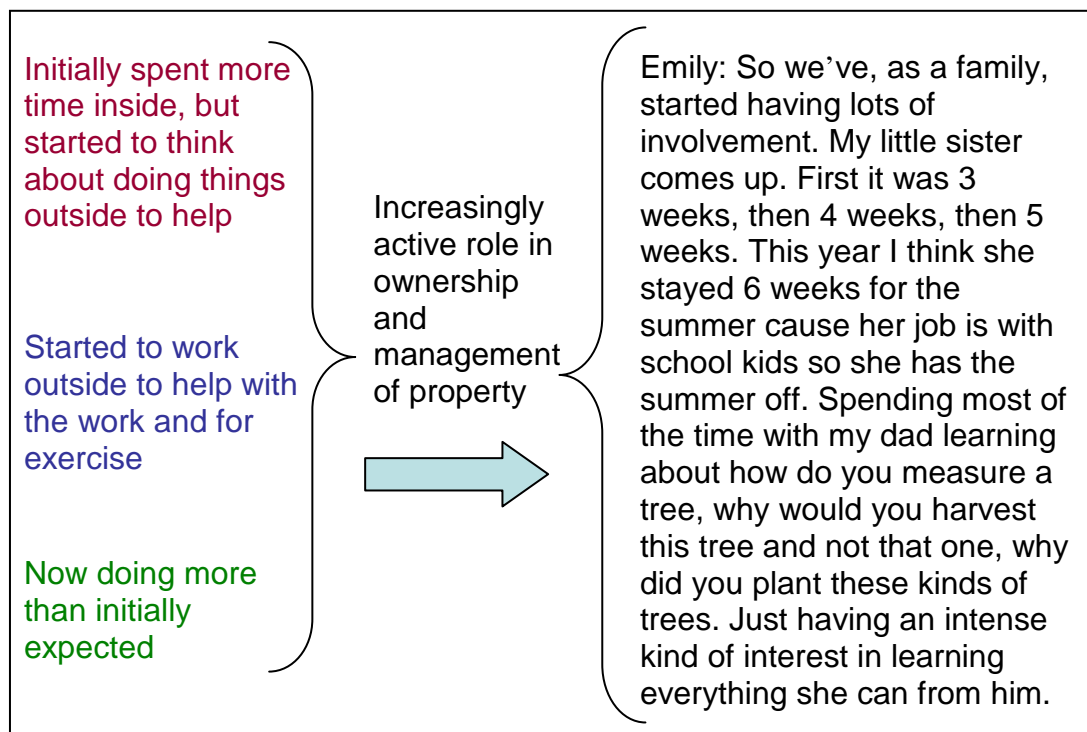


Figure 5. On the left hand side of this figure are the initial codes that I used from my interview with Josephine. In the center of this figure is the broader category that encompasses the initial codes. I then used this category to code a different part of an interview with Emily for the second phase of coding.

Finally, I gave each interviewee a pseudonym to enable me to contextually relay interviewee’s stories while retaining confidentiality and anonymity. Because I did not compare my interviewees using their socio-demographic characteristics, a common

technique found in quantitative research, I chose not to list them by their characteristics.

Methodological assumptions

The primary methodological assumption I made was that everyone on the WOWnet membership database had participated in a WOWnet meeting in the past. I learned that, despite having a name and contact information listed on the database, self-described WOWnet membership and participation varied. I discuss this in the results.

Limitations

A major limitation was the general lack of sponsored WOWnet events from summer 2008 through winter 2009. Despite an active email list with many notices of forestry-related news and events, there were few WOWnet-specific meetings during this time. This may have limited my ability to understand more about the community and its culture.

When we talked about extension service, we talked about Master Gardener, Master Food Preservers, and 4-H. I kept saying, "Wait, wait! You're forgetting forestry!" "Oh, yeah, yeah." So I was the only - no, there was one other guy. We were the only foresters on it so we had to educate them. But these other groups had huge membership. (Susan)

CHAPTER FOUR- Findings

Because I used pseudonyms, I was able to anonymously, but contextually, relay stories that illustrate some of the major themes I found in my research. In this chapter, I answer my research questions from chapter two. Specifically, I explore the lived experiences of women in forestry, I describe women's roles in forest ownership and management, and I discuss how women use communication and networking, both within WOWnet and in other natural resource-based communities.

Lived experiences of women in forestry

In considering their experiences as women in forestry, my interviewees had a variety of responses. In this section I explore the prominent conclusion that forestry, as a masculine field, is generally changing, but that women in forestry still face complex problems because of gender stereotypes.

Forestry is changing

Most of my interviewees believe that forestry is changing; there are more women involved in forestry today than there were in the past and women are taking increasingly active roles. For them, this means that women have an increasing ability to participate actively in the forestry community, access forestry-related knowledge, and play a more active role in forest management.

Sylvia, a retired school teacher who has owned and continues to own numerous parcels of forestland with her husband, told me that women are becoming more involved in forestry than ever before “because of the stereotyping that was done in the

past. So most women my age haven't had the direct, they haven't been out in it. And so, their direct knowledge would be a lot less. And I think that's beginning to change." Sylvia believes that just being out in the forest and having exposure to forestry means that more women have knowledge of the forest and forestry. Brianna agrees that there aren't many women in forestry, which means that for most women, "The conversations are going to be different. They can only talk about what might be. The men are doing it and the women that are working in the woods are doing it." However, Brianna currently works with her partner both in the forest and on the farm as a rancher. She believes that, "it's always been I'm capable to do whatever I put my mind to. So there's never been a guy - girl issue for me. I've driven heavy equipment, I've been in the farming fields as a head baler. So I've never been treated any differently." Because of her work in the forest and on the farm, Brianna is a part of the forestry community and considers herself to be one of the few women actually working in forestry. She has never had a bad experience working in forestry because of her gender, and she believes that practical experience is more important than gender.

Kathleen, who considers herself a novice in forestry because she has only recently started to become more active on her husband's tree farm, was the general contractor for the construction of her house. She believes that forestry and construction are similar in terms of gender relations. She said,

The perception of women doing physical labor, the perception of women being strong enough or knowing how to start a chainsaw, run a tractor, me having conversations with my different contractors and sometimes being respected and sometimes not. Just the whole discrimination is interesting. Maybe in the world of forestry some of that is starting to change more than in the world of construction.

For Kathleen, the intersection of gender relations and discrimination is a major issue in male-dominated fields. Not only can women be barred from opportunities to learn because of gender discrimination, but women who do participate actively in male-dominated fields may not be given the same type of credit for their work. Janet, who recently received an award for the management of her forest, said that, “sometimes you probably don’t get the same recognition as you would if you’re a man. But I think that’s changing.”

While most of my interviewees believe that forestry is starting to change, there are still cases of discrimination. Susan, who got involved with forestry and forest ownership because of her husband’s interest in forestry, said,

Have you heard the story about the gal who does all of the buying and her husband- the two of them work together. She does all of the buying and she would call the buyers and they would call back and ask for her husband. And this just kept going on and on and finally- and she’s the one calling the contractors and everything. And then the check came and it just had her husband’s name on it. Now that may be a totally isolated case, I don’t know, but I think it really pinpoints that sometimes there still is discrimination. But I really think it’s changed a lot in the last few years.

She later said, “I think the newer generation is going to do things a whole lot different- well, I mean they are really involved in, uh, I don’t know. I think it’s an education thing. Women are far- but that’s true in everything... Not willing to just be the quiet person.” Josephine, who lives part-time on the property her husband inherited from his family, agreed. She said,

I think the young women today are more involved than they were in the past. When my mother-in-law was [living at our place], she never stepped outside of the house. She only got to cook. She never did anything outdoors. And I don’t know that it would be because she was a very energetic woman and I know she would have done whatever, but I don’t think it was done then. So even my age is kind of old, and the young ones I see at the WOW[net] meetings, they know

how to run a chainsaw and everything. And they have a lot of education - they're in forestry or they have a degree and they really know what they're doing. And that's good.

Both Josephine and Susan referenced the importance of generational differences in women's increasingly active role in land management. Specifically, young women today are more likely to have greater opportunities in forestry than young women in previous generations. However, many of my interviewees also discussed how women, who at one time may have been the passive partner in land management, are now participating more in the management of their forest.

Josephine told me that she has lately started to play an increasingly active role on her property by doing more of the physical work. Similarly, Jean recently purchased the farm she grew up on from her father. Since she retired a few years ago from teaching, she has become more active in the management of the land and has been trying to learn as much as possible. Elaine, whose husband passed away a few years ago, told me that, "I just think it's neat that women feel that they can have an active role and do it by themselves... I think it's great that women are afforded the opportunity to try, at least, to manage the land." Elaine worked the land with her husband before he died and, after he died, she took on sole responsibility for the land. Although she feels she has a lot to learn about forestry and forest management, she is actively seeking out information so that she can maintain the land on her own. Many of my interviewees reported that they have been taking an increasing role in the ownership and management of their land.

Notably, several of my interviewees worked for the US Forest Service (USFS) in the 1970s, when Affirmative Action policies became instrumental in increasing the number of women and minorities working for the government in areas where they had not been before. Both Zoe and Emily received formal educations in forestry and went on to jobs in the USFS. However, while Emily was able to make it a full-time career, Zoe left after a few years of working under permanent seasonal status.

As Zoe told me, “I went in under the Affirmative Action hiring of the ‘70s. There were a lot of women coming in, but we were not welcomed. It was extremely difficult. And I- I only stuck it out for three years.” She elaborated that her male colleagues demonstrated “just obnoxious, macho behavior. That’s all. And you had to put up with it. I knew why they were upset, but I hadn’t even anticipated it when I went in.” For Zoe, the lack of support from her male colleagues made it difficult for her to continue working for the USFS. Furthermore, Zoe was unhappy with her work in timber scaling and measuring, which made it more difficult for her to continue working for the USFS. She describes many of the competing factors that played into her decision to ultimately leave her job with the USFS.

I realized I was never going to be able to be in a decision-making avenue which, my feeling was I wanted to do sustainable forestry. It is different now- there are a lot of women in the Forest Service now who are in that position... who have stuck with it. The District Manager of [a] forest... is a woman. So that is new. But those are women who stuck it out. Not the ones who threw up their hands and left like I did... It might have been different if I had been younger. I already had four children, but I had a lot of enjoyable experiences just because going to get to go place- to get paid for walking around the forest. At the time of year when the rattlesnake weeds were rattling and wind’s coming and you’re all by yourself- way the hell out there. Oh- It was fantastic. I never would have known where those places were.

In contrast, Emily had good experiences working for the USFS, but noted that,

I was not only the first female forester that the forest had hired, I was the first female in a professional series. So, wildlife biologist, geologist, engineer, anything. First female. So it was like being in the circus for the first couple of years there where it's like, "And meet our female forester!"

She told me, however, that when she was initially hired on by the USFS, the boss for her original position found out she was a woman and decided he didn't want her on his team. Instead, another manager offered her the position that became her first USFS position. Emily said,

I got to know [the guy in charge of the timber management department] and just got to know him. Interacted in some of the classes and stuff and so he liked me and saw that I was reasonably intelligent and hard working and stuff like that and it completely changed his perception of women. And he walked into the manager of the personnel office and said, "I've changed my mind. Women are okay. Hire me two for this summer." And so he hired this student, specifically looked for a woman, and hired a woman from Oregon State University.

Emily's story is similar to Brusila's (1997) experiences working as a consulting forester. She said that her forestry skills and the relationships she developed with other foresters were more important than gender. "After I've worked with a logger for a while, he often says, 'I was worried at first about working with a woman forester, but you're OK!'" (Brusila, 1997, p. 67). It is possible that women who work in forestry may be able to change the perception of forestry as men's work.

Proving abilities

Two other women I interviewed, Erin and Lisa, both work professionally in forestry for private companies. Both women said they have only had positive experiences in forestry. For example, Lisa told me that, "I've never had a single issue because I'm a woman talking to professionals that are older gentlemen who have been in the field for

a very long time and have finally just started to see women come into the field more and more. I've never seen any negative feedback from them at all." However, Erin said that sometimes she has to prove herself to the men she works with. "[Sometimes] they don't know how to take me. But I think that after I talk to them for a while and they know that I know the business, it goes away." She relayed a story to me about her work.

And [the consulting forester] he's a nice, old guy... And he says to me, "You know, the guys over there are talking business stuff. Why don't we drive the truck around?" And I thought, "Hello! I'm supposed to be over there talking business stuff, too." You know what I mean? And he laughed it up, and he would say, "Oh, there's a gal over here. We have to be careful." And [my co-worker] said, "Where is she?" "There's a lady out here." Where?" You know? "It's just me!" I get a little bit of that. I can play that game. So there is a little bit of that. There might be some guys who might be kind of curious and give me a chance to come out and talk to them. I think that the, what I'm up against is when I go out there, I have to prove a little more than what a man might have to prove.

Erin's experiences are similar to Reed's (2003) findings that women working in the forestry industry for more than 20 years in British Columbia, Canada, believed they needed to prove their worth at work, while women who worked in the forestry industry for "only two years believed they never would be able to do so" (p. 382). Erin knows that she is capable and competent in her profession, but gender plays a role in how other people perceive her. Interestingly, Erin also believes that gender may work to her advantage when she deals with female landowners. "I think that women are going to appreciate having someone like them to call or talk to when they have issues with their land." In dealing with women, Erin may have less to prove because she believes, "Women perceive other women as more personable."

Within the professional community, however, having a professional mentor was critical for Erin. “[My mentor] vouched for me... And he, you know, took me out everyday and I sat with him while he talked to people and made the deals and walked the lands... Having a mentor was essential.” For Erin, her mentor enabled her to make connections and helped her become accepted within the forestry community.

Similarly, Zoe relayed a story to me about her friend, a woman, who was in charge of a fire crew for the USFS. During a potentially fatal situation in a wildfire, Zoe’s friend made a decision that saved everyone’s life. “Only one person had a minor burn on their arm and after that no one ever questioned her... And they’d have all died if she hadn’t said, ‘Ok, get down, get in your bags. Get on the ground now.’... She had to prove herself tremendously.” Zoe’s friend was able to prove her own ability during a life-threatening situation and because everyone survived, she gained the respect of her crew and continued her career with the USFS.

Femininity and forestry don’t mix

One major challenge for women in forestry is dealing with femininity while working in a masculine profession. Several women mentioned how femininity can be incongruous to working in forestry. For example, Erin told me that her mentor was critical because, “it would have been very difficult to get where I am now if I didn’t have his buy-in and his bringing me in and saying, ‘Ok, guys. She’s okay. She can be in the club. She’s not a, we’re not bringing Barbie in here to do this. She knows what’s going on and I’m bringing her into this club.’”

While stereotypically feminine qualities such as those associated with Barbie seem to impede the perception of women working in forestry, so do stereotypically masculine qualities such as outspokenness. Zoe told me that,

Some women weren't really interested in getting out and doing that hard work. I was a TA for a surveying class and I'll never forget this woman who came to work with long, polished nails, high heels, makeup and her hair done, and she's going to be out there surveying? Are you kidding? So no wonder the guys [didn't like us]. And I was already older than everyone else and very outspoken and [the guys] didn't like me, either.

Similarly, Anna, who volunteered on a local water resource board, said that, "there's definitely a little lady component to all this. And when I was on the [board], the guys didn't know how to deal with me. I mean, they had wives who would show up after the meeting with cookies. Here's a woman in the meeting talking." The other board members clashed with Anna because she engaged in debate with them about environmental issues. Not only did they take issue with her environmental and political stance, but they also felt challenged by her assertiveness during board meetings.

In contrast, Jennifer told me that while she simultaneously embraces her femininity and her love for forestry,

Until I joined WOWNet, that was the first time I really ever felt like I was 100% taken seriously. And I enjoy my femininity. I don't want to be a man, I don't want to try to be a man. I want to be a girl. I like being a girl. And I don't have any intention to change that. And being a woman and being feminine. And then being ignorant on top of that. Oh my god. You can get totally lost in a man's world. Because it is still a man's world, for the most part- forestry. That was a huge challenge. Just not being taken seriously.

These questions of femininity are found throughout other studies of women in forestry. For example, Reed (2003) found that, "Reference to qualities such as 'girl'

'young' 'small' 'feminine' were used by the interviewee to illustrate the challenges faced by women who entered the forestry workforce... these descriptions of women as 'young', 'small', and 'feminine' appear to illustrate how women fall short" (p. 385). Similarly, Brandth and Haugen (1998) discussed how gender stereotypes are a double-edged sword. Specifically, some women may assert masculine traits in order not to be seen as a token female. Women who assert their femininity may not be viewed as adequate for the job (p. 438). Traditional and inflexible perceptions of gender roles are problematic for women in forestry and may continue to be a major challenge despite increasing participation of women in forestry.

Self-reliance

Some women told me that, through their involvement with forestry, they have learned how to be self-reliant, regardless of whether they manage their land alone or are a partner in management. For other women, self-reliance can be difficult to achieve because of the nature of working in the forest. For example, Jennifer maintains a mowed 15-acre portion of her forestland for the aesthetic value. She admits that while she is generally able to actively manage her land for both "aesthetic beauty and merchantable timber", she has limitations to her self-reliance.

It's way too dangerous even to take down one full-sized snag. And I think probably one of the biggest challenges is there are a lot of things that need to be done from time to time that are more on the dangerous side. Where you really need to have someone with you. Well, there's nobody! I'm a single woman and your friends and your family get bored really fast when you say, "Oh, could you just come out here and sit and watch me for a few hours? I really need to take down this snag."

In Jennifer's case, she occasionally needs to rely on other people for help because of the limitations of working in the forest alone. Furthermore, Jennifer was limited in her ability to become self-reliant.

I wanted to learn how to use a chainsaw 'cause it is a necessary thing, and my ex-husband wouldn't show me when we were married, and [my boyfriend now] wouldn't show me. And it's like, Ok. There's things that a woman needs to learn how to do. We're not the same as men, no doubt about it, but we have to accomplish the same tasks so we have to find ways to do it.

At one WOWnet meeting, Jennifer was able to learn how to use a chainsaw. As a result of learning chainsaw safety, she has become more self-reliant on her own forest management skills.

Even for women who may not work directly with the land, but who have spouses who do, self-reliance is important because of the unpredictable lifestyle associated with the forestry profession. Sylvia, whose husband works out on their property and who worked as a professional forester for many years, told me that, "[Me and my husband] have learned to be really self-reliant and I am self-reliant in that [my husband's] hours for work have been irregular. So you learn self-reliance." She further elaborated that if her husband's truck broke down, he could get home very late in the night, which also taught her self-reliance. Similarly, Josephine, whose husband was in the army, told me that she learned how to take care of the business when her husband was out of town. "Because when December would come, we would have to sell [our Christmas trees]. Well, then if he was with the army somewhere, I'd be there alone selling those big trees. Sometimes I would take some of them with me to Portland." Because of the nature of their business, Josephine would sometimes take on a major role when her husband was out of town. For women in forestry, self-reliance may only be useful up

to a certain point because of the very nature of the kind of work. However, it can also be a useful skill that women develop either directly through working in forestry or through their spouses' involvement in forestry.

Women's roles in forest ownership and management

My interviewees expressed diverse interests in forestry and varying reasons for owning or managing their land and, for many, specific situations of forest ownership and management are nuanced and frequently complicated. Roles in forest ownership and management change over time and may be circumstantial. Instead of focusing on the amount and type of work women do in forestry, I focus here on the prominent themes of ensuring the future feasibility of the land, both through good stewardship and through effective transfer of the land. I also examine ways in which women's roles may diverge from men's roles in forest ownership and management, specifically those of being a woman working in the forest, and facing barriers to acquiring knowledge.

Importance of good stewardship

All of my interviewees discussed the importance of caring for the environment. However, the specific terminology used to describe good stewardship varied from person to person, generally according to their management goals. For example, Jennifer said,

The property has been badly abused as far as the previous owners... actually the last two owners where they just took and took and took from the property and they just didn't replenish it - didn't try to repair it or replenish it and replant it... Well they did some. The last owners prior to me replanted probably a couple of thousand pine that are on the property. And I've been taking care of those - those were just seedlings when I bought the property.

And so my major objective, what I've been working on is restoring the property and getting it back to health and nurturing it to a full, sustaining tree farm.

Jennifer is managing for a “sustaining tree farm” and, seeing healthy trees is part of her definition of good stewardship. Furthermore, because she lives on her forestland, she places a great deal of importance of the aesthetic quality of her land. She said, “Nothing that I ever do is without first consideration as to what’s best for the land. What’s best for the future... This was a nice piece of land, it was abused, but it’s still a beautiful piece of land and what’s it going to look like - it’s going to be magnificent.” Janet is also managing a tree farm. She said, “It really gives you a good feeling to go out there and see the trees grow. At least it does for me. The ones that are so successful, I’m like, ‘Yes!’”

For the women who do not intend to harvest much timber, good stewardship may be framed differently. For example, Anna’s main goal for her land is to restore an old growth forest, and she considers herself to be a caregiver for the forest. Zoe is managing to “just to try to keep the land intact. Keep the creeks from taking totally over, including the house. Just replanting- really riparian planting is what we’re doing. Reestablish sustainable forestry here, if possible.” Across my interviews, this idea of good stewardship was generally focused on the long-term sustainability of the forestland according to each interviewee’s management objectives.

Some interviewees believe that not only are they ensuring the sustainability of their forestland into the future but they are also helping with some “bigger picture” problems. For example, Jean believes that, in owning her forestland in an era of

climate uncertainty, “Maybe this is my little way of helping the planet.” Emily, on the other hand, envisions how sustainable forestry on her land can benefit both the local and the global community. Emily said,

We’re looking at it like how do we use this treasure to benefit things that we believe in: Habitat for Humanity, Red Cross, Adventure Cycling, Rails to Trails, Heifer International, those sorts of things, you know? So what we’re trying to do is benefit the land, ‘cause this place - we’ve improved it in the years we’ve owned it. So benefit the land, but benefit people around us, benefit our community, try to provide employment. That’s something that [my husband] and I both feel very strongly about. This isn’t our private park. We have an obligation to our community to use it to help create some prosperity.

These women, along with several other interviewees, recognize the potential benefits that their forestland can provide to larger economic and social landscapes. Good stewardship, in this sense, affects more than just the value of their land. It has far reaching consequences.

Intergenerational land transfer

For many interviewees, good stewardship is directly linked to the future of their forest. The emphasis on managing for the future means that many interviewees have been dealing with issues related to land transfer. Zoe told me that she proactively,

...already gave the land to the kids. And one [WOWnet member] said, “Well, I don’t think I could do that. I’m not that selfless.” And I said, “No. It’s not selflessness at all. It’s protection. Protection for the land.” Because that’s my thing is to try to protect the land. Not that I can own it, but somebody else can take care of it and maybe it’ll be very valuable to them some day and maybe it won’t. They can sell it, but they don’t have to.

Most interviewees discussed the importance of retaining their vision of good stewardship into the future, whether through intergenerational transfer or through the use of conservation easements. For example, Janet said, “I needed something to focus on. And also sustainability. I want something for my family later on that they can say,

‘Ok, you know. This will carry us through. We can enjoy this land that grandpa bought, be here for the next generation.’” For her, a major factor in the long-term sustainability of her forest is how her family will view the land. Salamon and Keim (1979) found that women in farm families in the Midwest “tend to view themselves as conservers or maintainers of family holdings for the next generation” (p. 116).

Whether women who own forestland have a focus on the transfer of their land that is unique from men remains to be seen, but the importance of transfer is unquestionable.

As Susan told me, part of the challenge is that “my generation is composed of people who actually obtained the land, worked the land. And so now we’re working the land but whether our children will want to work the land is another thing.” For many NIPF owners, facilitation of intergenerational land transfer can be a complicated problem.

Interest in the land and knowledge of how to work the land play a critical role in facilitating transfer. Emily has seen an increase in participation of her sisters in the management of her family’s forestland. She recalled that,

So we’ve, as a family, started having lots of involvement. My little sister comes up. First it was 3 weeks, then 4 weeks, then 5 weeks. This year I think she stayed 6 weeks for the summer... Spending most of the time with my dad learning about how do you measure a tree, why would you harvest this tree and not that one, why did you plant these kinds of trees. Just having an intense kind of interest in learning everything she can from him. Wanting to learn how to drive the tractor and yard logs and mow the roads. And my oldest sister is still working and has less interest in the technical aspects of forestry but through our discussions and stuff she’s got a huge understanding and interest in the need to maintain forestland as forestland and what it takes to keep it in the family... But she is just learning stuff. She’s signed up for some of these organizations and so she gets her OSWA newsletter and reads it and calls dad. “They said a riparian area. What’s a riparian area?” You know? And so over the last couple of years, just learning. So that’s a real personal thing- having it work in the family.

Part of the importance of successful land transfer has to do with the reality of forestry.

Susan elaborated that,

Just because you plant a tree now doesn't mean you're going to harvest it. Watching it grow, watching it mature and all of that, but if there isn't anybody in your family down the road that's going to continue with that management, even if they do it professionally, that would be another option. But you want to see the plot you own be maintained.

If an NIPF owner believes that she is managing for the long-term ecologic and/or economic viability of a piece of land, than it may be important to see that the land is managed this way in the future. Erin said that forest management "is frustrating, but it's in your blood, but maybe the reward is just having it and passing it on." Many interviewees discussed the process of generating interest in their family members to facilitate the transfer of their land. They mentioned the difficulties and the potential successes they have had in estate planning. Erin's belief in passing the land down as a reward means that sustainability is an inherent part of ownership.

However, passing down land may be more complicated in certain situations. Kathleen found it is important "to think about that legacy, especially when you don't have kids, of how do you take something that you put a lot of time, energy and effort, and have enjoyed the relationship with it and then pass it on?" For some interviewees, consideration for the care of their land into the future included conservation easements or gifting the land to public or private entities. However, a few women didn't seem as concerned with sustaining their management into the future and were considering selling their land for personal reasons.

Lifestyle challenges

For some interviewees, the irregular lifestyle associated with forestry played a big role in their lives. While it was a benefit for some, for others it was a detractor. Sylvia, whose husband worked professionally in forestry for many years, told me, “I have never known when [my husband] would come home because when he was logging for himself, if there was a breakdown he could get home at ten in the morning, and if there was a breakdown and they were going to fix it, he’d get home at midnight.” Sylvia noted several other examples of the difficulty in her husband’s irregular work schedule. Primarily, there were times during poor lumber markets when her husband had little work and their family survived on her teacher’s salary. She also noted that since retirement, they have finally been able to take vacation time which is something they weren’t able to do when he was working in the woods. Her husband’s unpredictable work schedule may have been especially challenging for Sylvia when their children were young.

Similarly, Brianna discussed the difficulties of combining work both in the house and out in their forest. Brianna said,

It’s hard for me because I’m always thinking about my house. You know, my house always gets put on hold. We have a very small house, thank goodness. I couldn’t keep up with a bigger house. If my house is the least bit messy, then I want to be there and clean it up. So that’s been hard for me... I need to still have a clean house and when you’re out 14, 15 hours a day on the ranch and logging, it’s pretty hard to... I stay up till one o’clock in the morning hanging laundry out the line and making lunches for the next day and [my partner] has a daughter that lives with us full time, so, you know, consulting her. It’s pretty hard. It’s like the “woman aspect” you don’t get anymore. But it’s, you know, I never was the “woman aspect”, anyway, but with the daughter at home and things like that, you kind of feel like you need to be there, but you need to be here...

Brianna's multiple roles on the farm and around the house are challenging. She feels torn about how to spend her time. Brianna's story supports Vanclay's (2004) argument that women are critical to the survival of the farm because they concurrently engage in farm management and maintain more traditional roles in the house.

In contrast to Brianna's concerns, Kathleen finds that living on their forestland provides welcome flexibility to her day-to-day life. She said,

In general, just owning your own business, whether it's owning the tree farm or owning your own business like I own, is that you have a lot of flexibility that you might not have in general. And now that we're living here, being able to, especially for [my husband], get out of bed and just go out to work is huge. And I know for him, he really likes this kind of a lifestyle. I'm not really answering this through me, but what I perceive us as a couple having is that you can have a lifestyle that really works for you rather than having a lifestyle that you find torturous.

Kathleen recognizes that this lifestyle has major benefits for her and her husband.

Anna raises sheep and she spins wool to knit hats. She shared with me that, "I would wish that kind of life for anyone, Lauren, where your vacation, your vocation, and your avocation are all the same thing. 'Cause where I am, I'm either working or in bliss, depending on how you look at it." Her love for being on the land means that her lifestyle is a benefit of her management objectives.

Access to information

For a few interviewees, just knowing where to access information can be a challenge. Some interviewees were similar to Susan in that they know generally where to go for information. Susan believes that "my husband knows all of that [forest rules and regulations] and I just know of it. I don't know that much about it... But I know where to go for the information. It's just not my fort . If something major's coming up, we'll

talk about it.” Like Susan, other interviewees know what they don’t know and know where to access the information they need.

However, some interviewees noted that they sometimes have a hard time just knowing where to access information. For Elaine, one of the major difficulties is not having “the knowledge to know that I’m doing the right thing.” Similarly, Kathleen has recently started to become more involved on her husband’s tree farm. Kathleen is beginning to learn about regulations associated with farm forestry, and she said, “But it’s me, mostly, trying to get familiar with even some of the terminology. When he goes out to do some kind of thinning, what he has to do to make it work. It’s not just going out and cutting down this tree.” Jean has recently purchased the farm she grew up on. While she knows where to access some information, she is trying to learn more. Sometimes she doesn’t know how to deal with issues on her land, like tree blow-down or trespass. However, for most interviewees, regardless of their self-described knowledge level, involvement in natural resource-based communities is an important part of their overall awareness of forest management, forest standards and forest regulations. Involvement in any number of these communities can serve as an access point to the information that women in forest management need to know.

Women’s use of communication and networking

Within the forestry community, organizations, programs, and sponsored activities provide opportunities for forestry professionals and people interested in forestry to communicate and network. In this section I describe how women communicate and

network in natural resource-based communities of interest, in general, and how women communicate and network in WOWnet, specifically.

Natural resource-based communities of interest

For many interviewees, involvement with the forestry community or other natural resource-based communities is an important component of their life. Janet, who is involved with Oregon Small Woodlands Association (OSWA), the local Watershed Council, and WOWnet, among others, told me,

I forget that I'm into so many things because I'm so busy. You forget how many things you really do get involved with. But I think it's all a part of your survival. If you don't know, how are you going to survive in society? You've gotta be able to know- you've gotta know what works, and not all those things that they have work, but they haven't figured that out yet. It's just the nature of the beast, I guess.

For Janet, involvement in these different communities enables her to access information, network within the forestry community, and have a voice in issues that may affect her management in the future. As such, she considers her involvement vital to her success as an NIPF owner.

The communities interviewees most commonly mentioned were: statewide or countywide OSWA chapters; Master Woodland Managers (MWM) through OSU extension; other OSU extension activities; local watershed councils; and Forests Today and Forever, a forestry education program out of Eugene, Oregon. These women are involved in various capacities and they may serve as leaders on a board, or they may be passive members who just read the newsletter. Involvement varies with each woman's personal interests, availability of time, and money.

Access to information

Many interviewees who are involved in forestry and natural resource communities cite access to information and education as primary reasons for being involved. These groups often offer tours and other educational opportunities that are accessible to a wide range of people. For example, Janet told me that when she and her husband first joined OSWA,

We did that just thinking it would be a benefit to our knowledge because we didn't have much forestry knowledge at the time. And it was meetings, it was associations with people who had lots of answers and every form of forestry, from big woodland, big company managers to just small ten acre people who just wanted to get involved.

Because each of these groups focus on varying aspects of forestry, some women noted that participating in multiple groups is especially helpful for accessing information. For example, Susan said, “[My husband’s] on the [OSWA] board, he goes to all the meetings, but we, together, participate in the tours with friends, and the tree schools and all of that. Sometimes I get to the point where you know enough, you just have to do some of these things.” Through these groups, Susan is able to access a plethora of information that can help her and her husband in managing their own land.

Not only is the general exchange of information at meetings and landowner tours important, but many interviewees availed themselves of offerings from these community organizations as a way to acquire information. For example, Jennifer told me,

Well, one thing I like about OSWA, I've really been able to learn a lot. I like that tree show because the vendors are there and I like seeing the options. I don't have time to read. I don't look at advertisements. And I hate having to spend the time to investigate whether someone is credible, so for the most part if I get something in the mail, it goes in the trash. The vendors that come there are people that are already trusted- that know what they're doing. So I can

listen openly and know what's going on and hear new information and I learn how to get supplies...

In Jennifer's case, her full-time job makes it difficult for her to spend a lot of time gathering specific information. OSWA events, like vendor shows, simplify her need to search for information. Similarly, although Brianna and her partner are no longer OSWA members, she liked participating in OSWA because it provided an outlet for general forestry needs. She specified that, "They had, if we had ordered extra trees, that was an outlet you could advertise them. Or bring them to the meeting." Other women like the publications provided by the different communities, such as the OSWA newsletters that provide association information and legislative updates.

Networking is an important way to access information. Through relationships developed over time at different events or through different groups, many interviewees told me that they can learn new information or find out who to go to for help. For example, Emily told me, "Sometimes there will be things, the way someone does something in their forest management, that's like, 'Huh. Why didn't I think of that?' Or, maybe a contractor that they used that did a really good job that we'll call the next time we want someone." Emily, like several other interviewees, also considered the importance of friendships developed over time through shared common interests. Because these natural resource-based communities, like OSWA, Forests Today and Forever, or MWM, attract people who are interested in natural resource management, friendship and camaraderie, like networking, become a major reason that people remain a part of the group.

Support for NIPF interests

Interviewees, particularly those involved with OSWA, noted the importance of the political support that OSWA provides its members. For example, Jennifer said, “The executive director [of OSWA] sends out newsletters that talks about special issues and this is one place I cannot be physically, actively involved in Salem, but I do try to stay on it.” By staying informed of the current issues affecting NIPF ownership, women can make sure that their management actions comply with the most current legislation.

Women who are actively involved with organizations like OSWA stay informed of political happenings that affect NIPF ownership. When they have political representation, they feel that they influence forest policies. Janet, who is actively involved with the OSWA board, said,

I feel like I’m quite informed because I’m on the board down there that stays abreast of all the state rules and regulations and so we have groups that go and represent forestry to the state... so I feel like, that’s part of exactly why I became involved in it because I felt like, here I am. If I stick my head in the sand, I’m not going to know when things happen. Sometimes you can help change them and sometimes you can’t but all you can do is be involved and try to give them a direction and hope that eventually it works its way out.

Janet believes that her involvement in the political scene can benefit her own interests.

Similarly, Susan, who is not on the OSWA board herself, said, “From the political standpoint, that’s why I like OSWA because lobbying in Salem has had quite an impact on forest management.” Changes in taxation policy have been approved, in part, because of pressure from these NIPF interest groups.

In addition to directly impacting forest policy, some interviewees believe that forestry organizations have a responsibility to educate the public on rules and regulations for forestland owners. For example, Erin said,

It's unfortunate that a lot of people don't understand [the environmental laws]. It's really frustrating. They think that if you just clearcut it and walk away and then sell it - they just don't understand the rules that we're constricted by to operate, the stream flow, the reforestation laws. And they're trying to- Oregon Forest Resources Institute is really trying to get the message out to people.

For Erin, outreach by forestry organizations and private forest entities means that they can educate the general public about forestry rules and regulations. Understanding is more likely to lead to support for forest policy.

Barriers to Involvement

Money can be a barrier to becoming involved with communities like OSWA that have annual dues. This may be especially true for women who are not professionally involved in forestry or for women who do not make money from their land. For some women, other limitations are the cost to travel and the time spent travelling. Similarly, some women recognize that they only have so much time to be involved with different groups. While both time and money were mentioned as barriers to involvement with these groups, the barriers were generally not perceived to be significant. This may be because the perceived rewards outweigh the time and financial costs.

For other women, the political agenda of certain natural resource communities is a major obstacle. For Brianna, a particular political stance taken by OSWA influenced her decision to withdraw her membership. Similarly, Zoe decided to resign from a position on a local natural resource board because,

They were so illegal, I didn't want to be associated with it. People warned me, "Zoe, you better get off there. You're going to get tarred with the same brush when they finally do something stupid." Which they did, they went after an employee. But, they got their hands slapped to some extent to where four board members resigned.

Anna also resigned from a position on a local natural resource board because of her more liberal environmental values. She said,

The guys were just so unused to having a woman [who is] so unwilling to look at any other way. Like the chairman. I said the word “clearcut” and everyone jumped a mile... “She just brought up the elephant in the room.” And he made this whole big elaborate plan to have a meeting about clearcutting and stuff and it was just a very big thing for them to have to even talk about it.

For some women, a major barrier to involvement with some natural resource-based communities is the level of comfort women feel with other members. For example, while Elaine enjoys attending tours with Forests Today and Forever, she does not feel as comfortable attending extension classes. Elaine noted that,

There are a lot of women that do go on [tours with Forests Today and Forever]. A lot of people are learning. People that go to the extension classes are more skilled- they’re loggers, more industry people. The people that go on the tours are more public people. A lot of them aren’t even landowners. They’re just interested in educating themselves on a broad range and that’s very comforting.

She further elaborated that, “It’s intimidating when they’re all loggers sitting up there and you don’t know what they’re talking about. Not that they’re mean, but it was intimidating.” Sylvia, whose husband is involved with OSWA, also believes that information at her local OSWA meetings can sometimes be inaccessible.

Sometimes it’s a bunch of foresters talking and they start talking about things, and I think, “I don’t know what you’re talking about. And I don’t want to ask because I don’t want to sound ignorant.” So, actually, our [local OSWA], which is well established and has been here in town for a long time sometimes really does shoot over the head of a woman who has inherited some ground.

Sentiments similar to these may have contributed to the creation of WOWnet because, as Emily said, “There’s something about us women that it would be good to have the doors opened a little bit and help them get their feet wet in forestry.”

WOWnet

For many interviewees who are involved in other forestry or natural resource communities, WOWnet is an additional source of accessible information. For others, WOWnet can be a vital starting point to becoming involved in forestry. Emily said that, “I see [WOWnet] as kind of a bridge to the traditional organizations, and hopefully more than that.” Regardless of whether WOWnet is the first, the last, or the only community women join, it is clear that for many women there is a value-added difference between WOWnet and other organizations or communities.

Small, comfortable groups

My interviewees believed that WOWnet’s small groups are comfortable and fun because of the lack of competition. Carol said, “I wouldn’t be asking some questions in a large group. I think the size of a group makes a difference, too. I think that it has to be small enough that everyone feels they can ask questions and not be criticized by the other folks.” They are comprised of peer groups of diverse women where everyone is there to learn and share and the knowledge exchange at WOWnet meetings tends to be horizontal. Sometimes, however, outside forestry experts are brought in for their proficiency in a particular area and the knowledge sharing may be more vertical in nature. Most importantly, as Erin said, “WOWNet was formed so that women can ask these questions in a non-threatening manner. They can learn and not feel like stupid to ask questions or have these guys talking all over their heads and everything. It’s more, you know, a safer environment.” Josephine agreed that,

It’s a good idea to take that element of men away because then the women are freer to talk, especially the older women, to say some things. With men there, you would never, you might exchange a brownie recipe or something like that. But these women are talking about real issues. It’s kind of nice. Instead of

what do you put in your brownies, or something. They can just go to the market and buy them with the money they earned from the wood.

Because WOWnet participants are almost exclusively women, the physical space of meetings and tours are safe from gender roles. The female gender becomes unexceptional because female participation is the norm.

Jennifer, who believes that WOWnet is a “safety net,” said,

Having a support group and having women with different experiences and different attitudes, different ways of accomplishing the same purpose, the education - you learn to do so many different things, anywhere from planting trees to how do you chainsaw to how do you fell a tree. It's really nice, some of the men that get involved and help with the instruction. Help gain a feeling of confidence and motivation that this is possible. I have thought several times, especially since I have been completely on my own, that motivation and that infusion of confidence by these women has been a lifesaver because, like I said, I think you're out in the world and it's hard to feel like you're being taken seriously. And to get the information that you need without feeling criticized or judged or put down.

Jennifer is not only more comfortable in these small, women-only groups, but she has gained confidence because of her new knowledge. She also spoke of the confidence she gains because of her role as mentor. She said, “I have just been so jazzed now because there are other women who are joining who are newer and they're calling me. It's like I've done something!” The diverse interests of women in WOWnet and the generally horizontal approach are viewed more favorably by many interviewees.

Social aspect

Most interviewees specifically mentioned the social aspect of WOWnet. For some it was an obstacle, but for most it was a large part of the value of their experiences with the group. Several interviewees mentioned the importance of the friendships they have developed as a result of being active in WOWnet. Amy told me that one of the reasons

she considers herself to be a member of WOWnet is because, “It’s fun and you get to meet nice people. I’m all for meeting nice people.” For many interviewees, these friendships were based on shared interests. Josephine told me her goal was “to connect with the other women. Maybe make friendships with other women who have a common interest of the land and how to preserve this land and pass it on to someone else. Better than when we found it.”

At many meetings, there is usually some deliberate and planned social time, sometimes in the form of potluck meals after a meeting, or sometimes in the form of roundtable introductions before meetings. There is also unstructured social time, such as during walks while women are touring someone’s forest. It is during these social times that members engage on a more personal level and develop deeper relationships. As Maton (2000) noted, “Social environments characterized by high levels of support, belongingness, cohesion, cooperation, and trust contribute to positive socioemotional and behavioral outcomes” (p. 36). For many interviewees, WOWnet supports this kind of social environment.

Some interviewees felt a real identity as a WOWnet member and as part of the WOWnet community. Jean told me that in building a relationship with other members through the small group, “You know that they’re intelligent and informed.” She feels that she can get to know other women better, feel less apprehensive about asking them questions, and she knows that there is mutual respect because there is an understanding of other people in the WOWnet community. Sylvia agreed that, “I think that it is valuable to know each other. It’s valuable to be able to say, ‘I could call this

person and say, do you know who I can talk to about whatever?’ And then I could see the emotional support.”

Two interviewees believed that WOWnet can be too social and, therefore, unproductive. Brianna does not consider herself to be a member of WOWnet. She told me that,

I think the idea [of WOWnet] is a very good idea. How many women end up in situations where they’re left with something and they have no idea how to manage or anything?... If you can get women together to be productive, more power to everybody. I don’t consider myself as a women because most women are not productive when they get together. I’m sorry, but it’s true. But, most of the time, if you get something like this where they can have men maybe mentor some of them. And I know in the first couple of meetings they were pulling in some men because they kind of didn’t know where to go with it.

For Brianna, the very nature of women’s interaction can be unproductive. Sylvia, who believed that there is value in the friendships developed through WOWnet, agreed with Brianna that it is “a little bit of a social organization. With potential, but it’s not there because when you get down to the nitty, gritty, you want concrete information delivered in a timely manner.” She elaborated that, “We kind of sit around and have soup and bread and we don’t know what we’re doing.” While the friendships and emotional support add value to her experiences with WOWnet, she believes that sometimes the environment at meetings may be too unfocused. However, she may have also been referring to her personal management objectives and the diversity of women involved with WOWnet. Specifically, “One woman likes to come because she likes trees, but she works in a nursery. Another one just has a little backyard kind of a thing. You know what I’m saying? They’re not forestry-oriented.” Sylvia may value

information to help her in timber harvest over the social support and sense of connectedness that other women in WOWnet value.

The woman's perspective

Some women perceive WOWnet more favorably than other forestry communities because of the woman's perspective. Kathleen, who recently moved onto the tree farm her husband inherited with his brother, has not participated in WOWnet before and does not know how she got on the participant database. She is starting to learn about forestry and admits that, "Right now any information to me is pretty helpful and if it comes from that perspective of more women and female, why not?"

This female perspective that some interviewees specifically referred to deals with both the kind of knowledge that might be different for a woman than for a man and the delivery of the information from women to women. In this way, WOWnet deals with women-centered knowledge. For example, Anna spoke about the difference in using a chainsaw because, "chainsaws are designed for a guy with shoulders, and women, the sense of gravity is a whole lot lower, so I want to talk with [WOWnet] about running a chainsaw." Anna also believes that forestry topics, in general, are different when they come from a female perspective. "Like if they talk about women managing woodlots, or women and chainsaws, or women pruning trees. I'm sure that a lot of the information comes through the men, and I expect that if it hasn't, that it will get filtered through a woman's viewpoint." Amy specifically joined WOWnet, "Because it was women. I figured the approach would be more geared towards what we want to know." In her case, she believes that women may need to access different kinds of knowledge than men. This may have to do either with gender differences in

management objectives or with ways in which women navigate around a world built by men.

Getting started

Historically, women who owned forestland were considered ‘just widows’ (Warren, 2003) and their ownership was perceived to be a consequence of their husband’s interest, not theirs. Even though Warren (2003) cited the ‘just widows’ myth as being a major pitfall of the current view of women landowners, it is clear that inheritance both plays a major role and is a serious concern for women who currently own land or will in the future. Carol told me that,

The reason I joined WOWNet was, I woke up one day and said, “Oh my gosh. What if something happens to [my husband]?” And now what, you know? Because I don’t have a 5 acre plot sitting over here. So that’s when I decided I better start learning some things. And this WOWnet thing came up and I thought, “Well, let’s just see what this is about.”

The impetus for Carol to become involved with WOWnet was the fear of becoming the sole owner and manager of her forestland. Erin, although she does not own her own woodlot, believes that,

There’s a lot of women who get, who have woodlands lying in their lap because their husband dies of a heart attack and all of sudden they’re managing and they’re going, “Ahh. I don’t know what to do.” I know a couple gals in WOW[net] have had that happen to them and it would be nice to see them more involved before something like that happens so that they can be knowledgeable and not leave it up to their husband. And in life, that happens to women a lot in life, just in general. They let their husbands do all the banking and the everything and then if something happens to them, they’re lost. Women need to be responsible for their futures. And [WOWnet] is a great way for a woman who owns woodlands, or co-owners, to be more responsible for their future.

Of 16 interviewees, two, Elaine and Janet, are widows whose roles shifted from co-managers to sole managers of their land after their spouses passed away. Both Elaine

and Janet discussed how the loss of their husbands motivated them into action. Janet began seeking information from other sources before joining WOWnet while, for Elaine, it was the first information source she tapped. Elaine said,

Probably the reason Women Owning Woodlands has helped me is because I was more in charge of the house part and [my husband] definitely was in charge of the outside part. So I have a vast amount of knowledge to gain and continue to gain knowledge just by reading, by doing, by asking questions. But it is, it's a challenge. It is. Spraying, upkeep, planting, everything. But I love it. I absolutely love it out here.

For some women, WOWnet has been a critical source of information and networking. It can be a first step, because of the accessibility of the information and the palatability of the delivery, in learning how to manage a forest.

Summary

In this section I explored the prominent themes that emerged during the research process. Primarily, I examined the overall shift in forestry towards a more gender inclusive field, but I also explored how gender issues can still be limiting for many women. I also described the roles of women in forest management and ownership by detailing the major concerns of my interviewees and the potentially unique challenges that they face. Finally, I explored how women use communication and networking in forestry management, particularly through their involvement with WOWnet and other natural resource-based communities of interest.

[Dad] had an old army truck that he used to haul lumber on and we used to go in the truck with him sometimes when he was hauling the lumber out wherever he was working. I remember visiting with him, riding in that truck. We'd go down these steep, rough roads, bouncing like this, and I remember hitting my head as a kid. But it was fun.

(Amy)

CHAPTER FIVE- Conclusions

In this chapter, I first provide a summary of my key findings and then, following a parallel construction to my research questions, I discuss my conclusions. I then reflect on my research experiences, suggest some policy implications on a national level, and explore how my findings relate to my chosen theoretical lens of empowerment.

Finally, I make some suggestions for future research and end with concluding remarks.

Key findings

NIPF owners control a significant portion of forestland nationwide and, while women own or manage NIPF lands, we know very little about how women manage forestland and what barriers women may face in forest management. While there are many forest organizations available to NIPF owners, few are geared specifically to women.

WOWnet, an OSU forestry extension program for women woodland owners in Western Oregon, was an ideal community in which to understand more about women in forestry.

I approached my research from a feminist perspective, realizing that a feminist approach would enable me to critically examine what we do and do not know about women in forestry and empowerment, my chosen theoretical lens. I used qualitative ethnographic methods and a case study approach. In addition to participant observation, I interviewed 16 women from the WOWnet participant database.

Major findings are that there is an overall shift in forestry towards a more gender inclusive field, but gender roles can still be limiting for many women. Specifically, women may need to prove their abilities in working in forestry, and women view their femininity in direct contrast to forestry. However, many women emphasized their positive experiences in forestry. Women also play important roles in the ownership and management of their land, particularly as it pertains to land stewardship. Land stewardship deals with current management of their land and transfer of their land in the future. However, women may face unique challenges to forest management, particularly given the irregular lifestyle associated with forestry that may be especially difficult when women must also care for the household. Accessing information posed a barrier as well. I also learned how women use communication and networking in forest management, particularly through involvement with a variety of natural resource-based communities of interest and WOWnet, in particular. WOWnet, however, is unique from other communities because it is more horizontal, small-group and praxis-based in its approach. The female perspective, both in terms of the kind of information and the delivery of information, also draws many women to WOWnet.

Lived experiences of women in forestry

Forestry is a changing field. As women in farming, who were once marginalized from their roles on the farm, are reclaiming their part in agriculture (Trauger, 2001), I believe that women are claiming forestry as a feminine domain, arguably for the second time. We may never know the role of women in forestry in the past, but it is possible that by drawing attention to women who are involved in forestry today, forestry will become more inclusive of women. Many interviewees have a love for

forests and just being outside. Despite the struggles that some interviewees faced in gaining initial acceptance within the community, my interviewees were and continue to be groundbreakers for women in forestry. It is because of these women and other women like them that increasing opportunities exist for women to become active in the forestry community. However, there are still cases of discrimination against women, and femininity and forestry are sometimes seen at odds with each other. These present challenges to envisioning a future of forestry that fully values women and their different perspectives. I believe that as long as women continue to enter the field, forestry will continue to morph into a more inclusive realm.

Women's roles in forest ownership and management

Women play various roles in the ownership and management of their land, and the roles that they play are frequently circumstantial and change over time. This is why I did not attempt to quantify the kind of work or the amount of work women do on their land. However, for my interviewees, the importance of good stewardship for their land, now and into the future, is significant regardless of individual management objectives. Women also considered how their forestland affects, and could potentially benefit, different scales of community; from their neighbors, to their county and state. In this way, women unquestionably play an important role in achieving a vision of good stewardship on NIPF lands today and into the future. This is significant because retention of NIPF lands is one way to mitigate the pressures of forestland conversion. Furthermore, by acknowledging that women face barriers in accessing forestry knowledge, which could ultimately hinder their achievement of management goals, I

believe that we can determine how to mitigate these barriers and eventually achieve fully-realized stewardship of these private forests.

Women's use of communication and networking

While women are involved in a variety of natural resource-based communities, WOWnet is special to many women. WOWnet meetings are free, advertised in local and free newspapers, and without overt political agendas. WOWnet meetings also take a small group, praxis-based approach where women make connections and develop relationships with other women who are also interested in forestry. This may be why WOWnet appeals to women with varied interests, from diverse backgrounds. Also, topics covered at meetings focus on women-centric knowledge, transmitted in a female-friendly fashion. This “value-added” difference from other forestry communities may account for why WOWnet is an attractive resource for women who are involved.

Women-centric knowledge pertains to the need for women to learn different information than men. This need for women-centric knowledge may result from gender differences in land management, or knowledge gaps that exist for many women due to the traditional paternal transfer of knowledge. Women-centric knowledge also deals with the process of knowledge transfer from women to women. I believe that this has to do with differences in communication styles between men and women. Brusila (1997) stated that, “The female emphasis on communication, compromise, and nurturing could enhance our profession if we both increase the number of female foresters and encourage men to expand on the above skills” (p. 67). I believe that by

supporting women entering the field of forestry, possibly by focusing more on women-centric knowledge as we see in WOWnet, forestry is inevitably going to become more inclusive of women and, consequently, more inclusive of people with diverse interests and backgrounds.

Reflections on the research experience

I was new to Oregon and to forestry when I first joined WOWnet. WOWnet has been a critical part of my education, not only because it is the basis of my research, but because I have learned a lot about what forestry and forest management means to a female NIPF owner. My participant observer role and the relationships I developed within the community contributed to my view of NIPF lands in today's landscape. Furthermore, because of my active role within the community, I have a better understanding of my interviewee's responses, both positive and negative, towards WOWnet as a place to learn and WOWnet as a social community.

I had valuable experiences during the research process that cemented my belief in research as a transformative process. I found that, during the interview process, some participants critically thought about their role in forestry for the first time. For example, Anna, who had never attended a WOWnet meeting yet considered herself a member because of her attentiveness to the email listserv, discussed her own interest in a particular meeting topic that she had yet to attend. Several days after we met, she sent out an email to the group asking if anyone would be interested in getting together to talk about that particular topic, and months later I was present at her first WOWnet meeting where she seemed excited to finally participate face to face. Similarly,

Kathleen, who was unknowingly on the database list and who knew very little about WOWnet, seemed interested to find out more about WOWnet and what it would mean to become involved with WOWnet. It seemed that the process of engaging Anna and Kathleen in this conversation motivated them to address their own needs and interests.

On the other hand, Elaine told me that she felt very uncomfortable being involved with my research. She had a very different response from participating in my research: instead of experiencing an increased interest in this community, she may have lost interest in WOWnet. This was not my intention. A feminist approach should generate internal, positive change within a community (Narayan, 2004). Although I am unsure as to whether it is possible to mitigate or avoid similar negative reactions, I believe participatory research still holds promise because of its focus on community-driven, process-based, research. I recognize, however, that the entirety of this research would have been different had I used a more participatory approach.

Policy implications for Cooperative Extension Services

In studying women in forestry communities in British Columbia, Canada, Reed (2003) suggested that, “Greater attention to women’s participation in forestry- in practice and in discourse- provides more nuanced theoretical explanations and more accurate empirical descriptions to inform policy choices about forestry employment” (p. 387). While Reed (2003) focused specifically on the goal of women’s employment in the forestry sector, I believe her conclusion is relevant to policy that affects NIPF ownership by women.

Warren (2003) said there is a need for understanding diversity in landownership, and policy should require Cooperative Extension Services (extension) to recognize and cater to diversity, not only of gender, race and ethnicity, but also diversity in terms of needs from the land and management objectives. Warren's (2003) suggestions for extension are extremely pertinent. Extension policy now recognizes that NIPF owners have "multiple use objectives" (USDA, 2005, p. 2) and emphasizes the importance of "protecting, maintaining, enhancing, restoring, and preserving forest lands and the multiple values and uses that depend on such lands" (USDA, 2005, p. 3). However, extension's main focus is still to provide assistance, generally in a top-down manner, by transferring information to "opinion leaders" (Bliss, 1991, p. 12) within the NIPF community. Opinions leaders (or, early adopters) are then expected to transfer information to the rest of the NIPF community in a two-step communication process (Bliss, 1991). This means that extension agents need only to reach a few target individuals to achieve their goals. I consider this to be the "old" model of extension.

There are many examples of extension using the old model. For example, in the proceedings from a workshop on the use of goats in forest vegetation management, Mount (1991), a Cooperative Extension Program Forestry Specialist from Tuskegee University, discussed variability of forest management goals using factors like ownership, geographic feasibility, and economics. Immediately following his brief introduction to diverse landownership in the Southern US, the author contradictorily stated that, operating under the assumption that most landowners want highest economic productivity, landowners should plant Southern Yellow Pine. Mount (1991) then proceeded to describe how landowners can achieve the most efficient pine

plantation. I believe that this focus on a singular method for timber management and highest economic value exemplifies the old model's top-down flow of information, the role of extension as expert, the focus of information on efficiency, and the determination of success based on acres of land treated.

Another study, focused on "underserved" landowners' use of extension workshops, declared that,

Unfortunately, most NIPF landowners are not realizing the full benefit of their forestland. Landowners with small- to mid-sized tracts generally lack forestry knowledge and training, thus making their lands less productive and more often neglected than other ownership categories (Hughes et al., 2005).

Here the authors equate productivity with good stewardship. Furthermore, despite having initially defined underserved landowners as minorities, women, and those who traditionally do not access federal, state, or local programs, they later expanded this definition to "one who has not recently utilized various federal, state, or local resources." However, measures of outreach success to this target population were determined by unquantifiable observations of "new" participants by those running the workshop. The authors also made no attempt to address the kind of information delivered, as underserved landowners may not want or need the same kind of information as landowners who traditionally use extension resources. The delivery mechanism was also not addressed. In this case, the role of NIPF owner was client, the extension office was a place to receive information, and no certain metric was used to determine the workshop's success of reaching out to underserved landowners.

If extension wants to become relevant, they must open up *conversation* with *all* landowners, not just the early adopters. Specifically, they must shift away from sole

application of university research to private lands and move towards a mixed method approach, whereby the university recognizes they have something to learn from landowners, too. In addition to changing the nature of these interactions, a more inclusive extension could mean that different landowners, perhaps even the “laggards,” actively use this resource. When different landowners bring their own value systems, extension becomes more relevant. I consider this to be the “new” model.

We are starting to see examples of extension utilizing aspects of the new model. For example, the OSU Master Woodland Manager (MWM) program is an extension program that provides selected volunteers with basic forestry skills and information through extensive training. These volunteers ultimately help other woodlot owners achieve their management goals, whatever their goals may be (Bowers, 2000). Lisa, an MWM, told me that what the MWM program has “really focused on is, ‘What do you want to do?’ And whatever we don’t answer, we’ll find out the answer for you.” This volunteer program is community driven and attempts to reach out to more landowners by focusing on landowner needs. Furthermore, this program facilitates two-way communication exchange between many landowners and few extension agents.

Another example is the recent increased interest among the USDA Cooperative State Research, Education, and Extension Service to develop nationwide extension and outreach programs specifically for women. WOWnet can help serve as a model for other women-specific programs, both in forestry and in other natural resource settings.

Alternatively, I attended an extension workshop focused on helping NIPF owners make money from their land through accessing nontraditional forest product markets, such as recreation, carbon credit exchange, conservation easements, or high-grade, specialty lumber markets. The catalyst for this workshop may have been a falling timber market, but many NIPF owners may not want to harvest timber regardless of the market. While this kind of workshop may not have been relevant to the many landowners who have other streams of income, such as from professional careers outside of forestry, for some landowners accessing these alternative markets may be an important way to ensure the economic feasibility of their land. All of these emerging alternatives illustrate how some extension forestry programming is geared specifically towards diverse populations and diverse interests. Models like these can help keep Cooperative Extension Services relevant in a changing social, ecological, and economic landscape.

Table 2 shows a comparison of the old extension model, as based on productivist values, and a fully-realized, new model of extension, one that is infused with collaboration and recognition of diversity. Just as NIPF owners are innovators (Bliss and Kelly, 2008), they may also have a great deal of local, place-based knowledge to share (Fischer, 2000; personal observation). In valuing landowner knowledge, extension can serve as a type of forum for private landowners, forestry specialists, and university researchers to meet and share ideas. This would serve the dual purpose of generating greater community involvement and encouraging the university to engage in more applied research.

Table 2. A comparison of old and new models of extension services. The left-hand column shows how different variables are affected under the current “old” model of extension services (center column) and my proposed “new” model of extension services (right-hand column).

	Old model	New model
Flow of information	Top-down approach	Bottom-up, top-down mixed method approach
Role of NIPF owners	Client	Colleague
Role of Extension Services	Expert	Colleague; facilitator
Role of university research	The best way to do forestry; research initiated by researcher interests	One way to do forestry; research generally initiated by landowner concerns
Purpose of extension offices	Place to receive information	Place to share information
Focus of information	Efficiency, production	Diversity
Metrics to determine programming success	Economic production, forest health, acres treated	Access to information, confidence in decisions, availability of social networks

Furthermore, extension needs to rely on alternative metrics that are less couched in forestry and forestry-related terms. Such metrics may include access to knowledge, availability of networks, sense of belonging, confidence, or empowerment. These kinds of metrics are not as easily measured as traditional, quantifiable, forest-related metrics, such as acres regenerated. However, they can be measured by determining who from the community is involved, how involved they are, and why they are involved. By relying less on utilitarian metrics and more on these holistic measures to determine program success, extension may develop more long-term relationships with NIPF owners and become more of an interactive resource. As we recognize and begin to cater to NIPF diversity, these alternative metrics may actually be more relevant to achieving good stewardship or active management.

Theoretical implications for women's empowerment

Barely a decade ago, Brandth and Haugen (1998) found that JiS, a woman's forestry network in Norway, and women in forestry

do not change the hegemonic discourses, and they do not criticize and resist the dominant discourses. Rather they introduce the women question to the discursive field of forestry, but whether they influence or destabilize the taken-for-granted notions of masculinity remains to be seen. Breaking into the forestry discourse is hard work. (p. 438).

I believe their critique is still relevant today: despite their noted change in the "gender discourse" (p. 438) forestry is still predominantly masculine. While it is clear that WOWnet has explicitly introduced "the women question" to forestry in Western Oregon, forestry is continuously re-created as a masculine domain. An example of this is the television show "Ax Men" (Miller & Whalen, 2008), a History Channel program that focuses on logging operations within the Pacific Northwest as an exclusively male domain. In these and other social re-creations, forest workers are portrayed as being "tough, rugged, hard working, battling natural forces like rain, snow, storms, frost – and even heat and insects, implying that this is a man-sized job and no work for sissies (read: women)" (Brandth & Haugen, 1998, p. 435). While Brandth and Haugen (1998) question any shift in "the taken-for-granted notions of masculinity" (p. 438), the narratives that emerged during my research directly address the realities of females involved in forestry. My findings lead to the primary conclusion that WOWnet is a tool that can empower individual women.

For many women, WOWnet provides a safe, comfortable learning environment where small, praxis-based groups approach forestry from a female perspective. Even if women are involved in other organizations and networks, WOWnet's network enables

engagement in forestry on an alternative level. Some women consider themselves to be forestry novices and get involved with WOWnet primarily to acquire information and network with other women. This knowledge may enable women to have more control and power over their choices for management, and the information exchanged at meetings may be more palatable because of the emphasis on diversity and multiple management objectives. By understanding potential management actions and their alternatives, women gain a sense of control over their own decisions. Women are informed because they can learn and ask questions in a safe environment. In this way, women gain agency, or an ability to make choices, within the realm of forestry.

Women who consider themselves to be more experienced in forestry may take on a mentorship role within the WOWnet community. These mentors may feel a sense of satisfaction from being able to impart their knowledge to other women. When WOWnet mentors realize that they can be a resource for more inexperienced WOWnet members because of their knowledge and/or experience, they may come to recognize and value their own knowledge. Through the realization that they have something to offer other women, mentors acknowledge their own agency. Novice/mentor roles are malleable and dynamic because women who have expertise in one area may have no experience in another area. Experience is valued as knowledge and many interviewees, mentors or novices, who participate in WOWnet noted that they always learn something new at meetings. Because empowerment on an individual level involves the recognition of one's agency and working with others to change it (Pini, 2002, p. 341), WOWnet can be viewed as a vehicle to enable personal empowerment.

Furthermore, “A woman’s personal empowerment can perhaps be viewed, in part, through the lens of power through connection, that is, through the establishment of mutually empathetic and empowering relationships” (Papa, Singhal, Ghanekar, & Papa, 2000, p. 96). WOWnet members generally support each other and provide a welcoming environment for women interested in forestry. If power is gained through connection, then WOWnet meetings, where connections occur, can be empowering for women. Because meetings are held in and around a member’s home, because groups are small in size, and because social time is an integral part of meetings, relationships develop and grow. Additionally, because these women self-organize meetings, we see that empowerment through collective action occurs.

Kabeer (1999) helps us understand why this phenomenon is happening through her use of Bourdieu’s theory of doxa.

The passage from ‘doxa’ to discourse, a more critical consciousness, only becomes possible when competing ways of ‘being and doing’ become available as material and cultural possibilities, so that ‘common sense’ propositions of culture begin to lose their ‘naturalized’ character, revealing the underlying arbitrariness of the given social order. The availability of alternatives at the discursive level, of being able to at least imagine the possibility of having chosen differently, is thus crucial to the emergence of a critical consciousness, the process by which people move from a position of unquestioning acceptance of the social order to a critical perspective on it (p. 441).

Certain pre-conditions of women’s empowerment were necessary to allow for the very idea of a women-only forestry network. While it is clear that women in forestry have been marginalized in the past, their roles are changing now. We find women working in the forest, we find women owning forests, and we find women actively engaged in forest management. These are options that did not exist in the past. The fact that

WOWnet exists signifies that, on a broader social scale, women are becoming increasingly empowered. I believe that our doxa is losing its credibility and we are moving towards discourse.

Future research

Understanding NIPF owners

There is a great need to quantitatively assess the needs of the WOWnet community to find out if and how WOWnet addresses those needs. Quantitative surveys are useful for making generalizations to the population (Bernard, 2006). A program evaluation of WOWnet could be conducted in conjunction with the survey. It may also be informative to conduct a comparative survey between women in WOWnet and women who own or manage forestland but who do not belong to WOWnet. This is especially important because I limited my research to women whom Rickenbach, Guries, and Schmoltdt (2006) would classify as “joiners.” This means that I may have missed women who tend to not join groups or organizations. Finally, a comparative survey would help extension services determine if and how WOWnet members are different from non-members and if nonmembers’ needs are being met in other ways.

I attempted to learn more about female NIPF owners and managers in Western Oregon, but I was unable to generalize to this population in Western Oregon or elsewhere in Oregon. Future research could focus on a) conducting a random quantitative survey of female NIPF owners, locally or nationally, to better understand women’s management decisions, and b) conducting a comparison survey to understand how women landowners differ from men landowners. By more holistically

valuing diversity within the NIPF owner population and what their varied needs may be, extension can design programs and other outreach materials to better work with the broader population. This could also have an effect on how policy is designed by pointing out inequities in legislative decisions.

Understanding empowerment

The way in which I approached empowerment, as cyclical and influenced by a variety of social forces, inherently means that disempowerment must also occur. While I did not explicitly look at the potential for disempowerment, Papa, Singhal, Ghanekar, and Papa (2000) found that “paradox and contradiction are an important part of the empowerment process” (p. 90) and that the nature of women’s communication may simultaneously disempower as it empowers. This means that time and place may play a considerable role in how a researcher perceives empowerment. The authors also emphasized that “women should not be viewed as passive victims of male oppression; rather, they are active agents constituted by and reflective of their social and cultural contexts” (p. 96). Future research on women’s empowerment in any context must examine the interplay of all of these processes in order to better understand the holistic and contradictory process of empowerment. One example of this may be how women deal with the apparent duality of femininity and traditional female roles, and working in the forest, especially as it pertains to how women define these roles, how women perceive these challenges, and how women cope with these challenges.

Additional research questions could pertain to how WOWnet and its members are comparable to other women-focused forestry organizations (WiLO, Women in the

Woods) and their members. Women's natural resource-based groups are a phenomenon occurring across the United States and internationally. There is need for a collective case study approach between WOWnet and women's groups in other developed nations (e.g., JiS in Norway; Brandth & Haugen, 2000) and WOWnet. These kinds of collective case studies can be helpful to understand what is occurring on a broader scale, both theoretically and practically (Stake, 1994).

The promotion of gender equity and empowerment of women tops the United Nations Millennium Development Goals for the year 2015 as the third most important priority (United Nations Development Programme, 2007). I believe that, because of the potential for generating collective action, women's groups can promote women's empowerment across the globe. Future research should examine the interplay between models of women's groups in developing and developed countries, NGOs, aid programs like USAID and World Bank, and aid workers. Learning about these patterns of cultural exchange can draw our attention to models of women's groups that are culturally sensitive and socially astute. By understanding why women's groups form and how they function, we can better achieve empowerment for women on a global scale.

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APPENDIX A- Interview guide

I'm interested to learn more about your role in forestry and forestry management organizations. To begin with:

1) Tell me about your property.

- a. Size:
- b. Location:
- c. Residence on-site or off-site:
- d. Length of ownership:
- e. History or ownership:
- f. Other owners:
- g. Other managers:
- h. Who does the work?
- i. Why do you own?
- j. Why do you manage?
- k. Manage for what?
- l. Primary job:
- m. Future plans for land:

2) What is your role in the ownership and management of your property?

3) What are some of the rewards of forest management?

4) What are some of the challenges to forest management?

5) What is it like to be a woman in forestry?

How would you describe your experiences as a woman in forestry?

6) Do you have a management or business plan? Do you stick with it? Do you update it?

7) What resources did you use to write them?

8) How informed do you consider yourself to be in forest management issues? (regulations and standards, soil and water conservation issues, fire and other management tools, road building)

9) What does WOWNet mean to you?

10) Do you consider yourself to be a member of WOWNet? Why or why not?

- a. Length of involvement:
- b. How involved:
- c. Why involved?
- d. Benefits of involvement:
- e. Drawbacks to involvement:

11) Are you involved with any other forestry organizations? Why or why not?

- a. Length of involvement:
- b. How involved:
- c. Why involved?
- d. Benefits of involvement:
- e. Drawbacks to involvement:

12) How do you think women landowners communicate and network? Is it different from how men landowners communicate and network?

13) Where do you feel most comfortable going to ask for advice?

- a. Why?
- b. How do you know to go there?

14) What else is important for me to know?