

Final Report  
To National Commission on Science for Sustainable Forestry  
September 16, 2005

Workshop on old growth in the Pacific Northwest:  
Reframing “the problem” of old-growth: emerging social and ecological views

Thomas A. Spies  
USDA Forest Service, Pacific Northwest  
Research Station  
3200 Jefferson Way, Corvallis, OR 97331  
Telephone: 541-750-7354  
Fax: 541-750-7329  
E-mail: [tspies@fs.fed.us](mailto:tspies@fs.fed.us)

John Cissel  
USDI, Bureau of Land Management  
Eugene, OR

Sally Duncan  
Department of Sociology  
Oregon State University  
Corvallis, OR 97330

Denise Lach  
Department of Sociology  
Oregon State University  
Corvallis, OR 97331

K. Norman Johnson  
Department of Forest Resources  
Oregon State University  
Corvallis, OR 97331

Fred Swanson  
USDA Forest Service  
PNW Research Station  
Corvallis, OR 97331

## Abstract

The overall goal of the workshop was to bring together a small group of leading experts and managers to explore the ecological and social dimensions of the old-growth forest conservation issue in the Pacific Northwest, and to identify directions that management and policy might take to better meet overall management and policy goals. Most previous efforts at resolving old-growth issues in the PNW region have emphasized technical and scientific dimensions of the problem. Few efforts have focused on the interactions of the ecological and social (humanities, social, economic and policy) sides of the problem. A group of about 30 people from various disciplines met for two days in plenary and small breakout sessions to identify critical questions and key strategies for dealing with old-growth issues.

Analysis of the perspectives on old growth of the participants revealed relatively little overlap (similarity of terms or concepts) between social and ecological values and perceptions. For example, social values include beauty, naturalness, and timber; while the ecological views represent biodiversity, ecosystem function, and forest dynamics. Similarity of concepts Overlap occurs in terms of species of concern and complexity/wholeness. Overlap on solutions includes reserves, adaptive management and market valuation of ecological services. Participants generated a large list of questions and issues. These were classified into 5 thematic areas for further discussion: (1) More than old-growth—old-growth is a surrogate for a larger set of ecological and social values; (2) Complexity—sources of problems and solutions to problems are imbedded in a intricate web of social, policy and ecological issues. (3) New knowledge communities—the political landscape has become fragmented into many groups and the management agencies no longer have a monopoly on information or scientific authority that can influence public opinion; (4) Restoration—active management is required in many cases to achieve old-growth goals; (5) New economics—as forest management increasingly emphasizes non-market values, such as old growth, new economic approaches are needed to help maintain agency capacity to manage for ecological goals.

The workshop was just a beginning. A book is planned that will further explore the nature of the problem and identify new ways of thinking about old-growth and more effective ways of forest conservation in a dynamic ecological and social environment.

## **Introduction.**

The science, policies, management, and politics of old-growth forests have had a relatively long history in the Pacific Northwest. Policy debates around old-growth forests initially focused on single species (e.g., northern spotted owl) and then evolved to a focus on multiple species and old-growth ecosystems. The social roots of these policy debates lie in a combination of issues including the aesthetics of wild and managed forests, and philosophical differences about the value of forests as reservoirs of wild nature and as resources for humans. Despite the implementation of old-growth conservation strategies on federal lands, the debates about forest conservation continue and may now be focusing more on the emerging underlying issue of balancing conservation of naturalness and natural processes with active management for multiple forest objectives -- questions that John Muir and Gifford Pinchot argued more than a century ago.

Although major old-growth conservation strategies have been implemented in recent years, significant issues remain as a result of ecological and social complexities. Key problems include: 1) The social arena for old-growth conservation and sustainable forest management is a maze of different agendas, perspectives, and policies (i.e., “wicked problems”), making it difficult for policy makers, managers, and stakeholders to identify problems as well as identify strategies to deal with the problems; 2) Most efforts have focused on federal lands without consideration of management activities on the entire mosaic of public and private lands; 3) Conservation strategies have emphasized goals associated with old growth but other ecologically important components of forest biodiversity may not be provided where old-growth is the primary emphasis; and 4) Conservation practices have emphasized passive management of existing stands of old growth, yet in many landscapes in the region, especially fire-prone types, active management is needed to reduce losses of old growth to high-severity fires. And active management can help restore diversity in forest plantations in many forest types. Furthermore, all forests in the region are subject to climate change, which may alter the capacity of the ecosystems to maintain or produce old growth as we know it today into the future.

## **Objectives:**

A workshop titled “Reframing ‘The Problem’ of Old Growth: Emerging Social and Ecological Views” was held on May 9-11, 2005 in the Columbia Gorge in Washington. The goals of this workshop were to:

1. Characterize the ecological, social, economic, and policy context for old-growth and associated forest biodiversity problems in the region and identify critical issues and the relevance of science to solutions to conservation and sustainability problems.
2. Identify directions for policy makers, managers and stakeholders that may reduce conflict and lead to more effective policies and practices

## **General Approach**

The workshop brought together some of the top academics (Appendix I) in the US to brainstorm how we think about old growth and forest biodiversity to ensure its conservation, and to identify strategies to make that outcome possible. A small group of regional managers and policy makers representing federal, state and NGO land managers participated in the workshop. The workshop had three elements: (1) pre-meeting work including written statements by participants and a webpage, (2) the workshop itself, and (3) post-workshop synthesis efforts.

Prior to the workshop participants were asked to submit a short statement describing their perspectives on the old-growth issue. These were placed on the website (<http://www.fsl.orst.edu/Oldgrowthworkshop/index.html>) for all to read. The statements were then used to develop a preliminary concept map of the dimensions and linkages of the old-growth issue.

The workshop agenda (Appendix II) emphasized small breakout groups and discussions rather than formal presentations. Many of the participants were familiar with each others' work and a central goal was to foster dialog among disciplines. A small group of high-level managers and policy makers was invited to participate on the afternoon of the final day. Presentations were made to this group and discussions followed.

Following the workshop, the local organizing committee has been meeting to develop a plan for writing and producing a book about old-growth based in large part on ideas generated during the workshop. In a real sense the workshop was only the starting place for a synthesis effort designed to explore and communicate the social and ecological dimensions of the old growth issue in the Pacific Northwest.

## Findings

The pre-workshop participant statements revealed major social and ecological dimensions and concepts that lie at the heart of the old growth issue in the Pacific Northwest ([www.fsl.orst.edu/Oldgrowthworkshop/statement.html](http://www.fsl.orst.edu/Oldgrowthworkshop/statement.html)). These ranged from social values related to beauty and relationships with nature, to scientific concerns about successional processes and species diversity (Figure 1). Potential solutions to the conflicts associated with old growth were related to improved collaboration and democratic processes, increasing the market valuation of ecological services, and increased efforts at adaptive management. In general, there was little overlap in the language used to describe old-growth issues and solutions between the social and scientific realms.

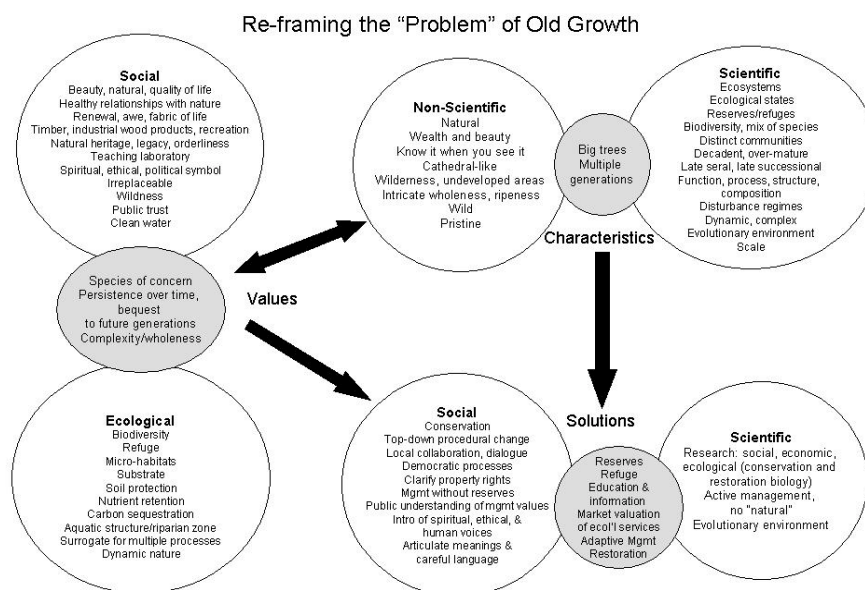


Figure 1. Conceptual map of key social and ecological ideas related to the old-growth values and potential solutions to the problems associated with old growth conservation

Discussions during the workshop were wide ranging. A concept map (Figure 2) was developed to help portray the influences of science, society, and policy on ideas about old growth. The group added a number of predominantly social and policy issues and questions to this map to help set the context for ideas about old-growth and strategies for its conservation (Appendix III). The lists were divided into five topic areas to facilitate discussion on the second day. These topics were:

1. More than old growth
2. Complexity
3. New knowledge communities
4. Restoration
5. New economics

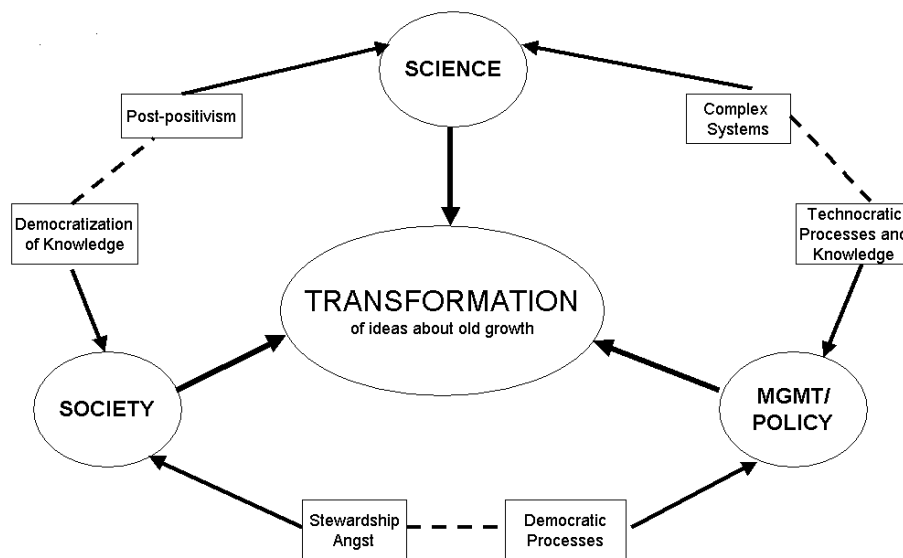


Figure 2. Concept map of elements that influence ideas about old growth based on statements from workshop participants.

**1. More than old growth: Old growth has become the dominant forest conservation issue and laden with meanings and images far beyond the technical descriptions found in forestry or ecology textbooks.** First, conserving biodiversity in PNW forests requires a broader spatial and temporal perspective than just old growth. While many species use habitats that form in older forests, many others use habitats from earlier successional stages. Some species use old growth as one part of a landscape-level habitat selection process. Second, old growth is part of a dynamic process. Consequently, its

conservation requires considering earlier developmental stages and the disturbances that maintain old growth or change it into other forest conditions. Third, old growth is really a surrogate for a large host of other conservation and social value issues including logging and the role of humans in nature and spiritual/aesthetic values of forests. Old growth has come to symbolize wildness and the essence of a pristine, undisturbed nature to some, while to others old growth represents the utility of productive forests.

**2. Complexity:** Old-growth issues play out in a complex web of social, economic, policy, and ecological forces that make predictions of outcomes and effects extremely difficult. Society has experienced an explosion of interest groups with changing expectations and ideologies that can lead to a pluralist paralysis. Future scenarios range from continued tweaking of current policies to a “doomsday” scenario in which management capacities are so reduced that large scale natural events such as fire and pathogens destroy at socially unacceptable rates. Lags and disconnects among science, society, and policy can cause confusion about the nature of the problem. For example, the Northwest Forest Plan, which allows for cutting of old-growth outside the extensive reserve network, is a symbol of a “balanced” approach based on ecosystem management science and is the official position of the Forest Service. Yet, in implementation the Forest Service has cut relatively little old growth. Consequently, the Plan has been implemented largely as though old growth is almost completely protected. Controversies still occur because many people look to what was intended in the Plan (e.g. a moderate levels of timber production and logging of thousands of acres of old-growth) and complain that they either did not get what they wanted or don’t like what was intended. This situation is an example of “symbolic” politics, where the symbol, in this case the Plan, may be different than the reality.

Complexity also means that forces outside current conservation efforts in the Pacific Northwest may intervene and change the entire system. For example, climate change and globalization may alter the ecological and socio-economic conditions in the Northwest, affecting the success of old-growth forest conservation strategies. Future scenarios range from continued tweaking of current policies to a “doomsday” scenario in which management capacities are so reduced that large-scale natural events, such as fire and pathogens, destroy property and ecosystems at socially unacceptable rates. Or, a new administration may implement new policies. A final aspect of complexity is that universities and research institutions are not well-designed to research and understand it within their traditional disciplinary bases. Some of the conflicts and confusion around old-growth may stem from this constraint on inquiry.

**3. New knowledge communities:** Traditional political structures have fragmented into many groups, making it difficult for policy makers and land management decision makers to find consensus on policies and management decisions. Another dimension of this that neither management agencies nor academic/research institutions any longer have a monopoly on the information and scientific and technical expertise about forests. Other forms of knowledge – for example, local and traditional ecological – are starting to come into play in the effort to understand our landscapes, resources, and planning for them. Satellite imagery, information technology, non-governmental scientists, and watch-dog

groups are widespread and compete with land managers for the best science and public opinion. Access to technology and knowledge – once the privilege of established institutions – has been vastly changed by the internet, the spread of expectations about public involvement, and social questions about the authority of science. In this environment, new collaborative efforts have developed that both broaden and fragment the political base of forest policies and decisions. Efforts to advance the conservation of old growth should embrace many ways of knowing, not just traditional scientific and technical ones.

**4. Restoration:** Past management activities, such as plantation forestry or exclusion of fire, have altered the desired structures and functions of old growth. For example, plantations that were established on many federal lands for timber production are now expected to develop into old-growth forests of the future. The species mixes and densities of these stands, however, may retard the development of ecological diversity associated with old-growth ecosystems. Ideally, restoration activities would have the goal of maintaining or enhancing the resiliency of ecosystems. Flexible thinking is needed—restoration cannot be black and white—either restored or not. “Strict restoration” would be applied to set ecosystems on a trajectory toward characteristics of natural systems (i.e. conditions that are consistent with our knowledge of the evolutionary environment of native species). “Liberal restoration” would be used where the goal is to set ecosystem on a path that may depart in some way from natural systems. These goals may be accomplished with a combination of active and passive management depending on the ecosystem, its disturbance history and the goal. To really be effective, restoration would happen over large areas. Adaptive management must be part of the process, along with a strategy for developing a skilled restoration workforce. Restoration will not happen if it is too costly or impractical. Costs and practicality s and practicality This all must be done with attention to costs and practicality.

**5. New economics:** As the public increasingly values non-commodity services of forests, such as old-growth and biodiversity, management institutions must find ways of paying for the work to reach these new values. In many cases, costly restoration efforts are needed that may not generate economically viable products. For example, many old-growth types are dependent on fire and require silvicultural activities as substitutes for fire or as part of a prescribed fire policy. The economics of valuing non-market goods requires new ways of investing in forests, some short-term and calling upon “emergency” dollars, others long-term and calling upon “visionary” funds. It also requires new methods for generating income that supports a management infrastructure that provides these natural services. For example, income can be generated by fees for recreation and carbon markets. Stewardship contracting can be used to get restoration work done. Globalization must be taken into account.

Presentations on these themes were made to the invited managers on the afternoon of the last day. Managers then participated in small group discussions organized around the themes. Feedback from managers was generally positive, although it was widely acknowledged that new breakthroughs on these difficult problems could not be expected in a short period of time, even with the high caliber of the attendees at the meeting.

There was some interest in having the synthesis focus some attention on the problem of managing for “natural systems” and the role of reserves in dynamic landscapes. Some felt that questions of “How much old growth is enough?” need to be answered. Some managers felt that the next few years represent a real opportunity to put restoration ideas into practice. Others felt that good works on federal lands can be torpedoed by lawsuits from a small minority. There was also some interest in paying more attention to the value of large, old trees for timber value. The managers look forward to a more developed synthesis product, such as a book. Several expressed hope that the opinions of the well-respected experts at the meeting could be used to help energize and motivate new approaches to forest management.

Additional points raised in discussions on the final afternoon included:

- Defining expectations for old growth (e.g. definitions, landscape distribution) and how to determine what management activities are appropriate when old growth burns up
- Reserves and active management—are they incompatible?
- How far can stewardship contracting go to change practices on federal forests?
- What are the effects of land trusts and timber investment and management organizations?
- How can we embrace complex systems and use that knowledge to design more effective institutions? E.g., the Oregon Department of Transportation developed some ways of effectively getting bridge repair done within the context of complex environmental laws
- How do we increase the effectiveness of adaptive management on federal lands? How can we get manipulations done in ways that facilitate learning?
- Old-growth is a moving target—has it run its course as a preservation tool?
- Lack of trust really hampers getting something done on the ground. Trust must be built in small steps. View commercial timber as a by product of restoration not as the objective in its own right.

### **Suggestions for future work**

1. Annual field meetings to discuss issues in real places
2. Printed materials that discuss:
  - implications beyond the region and internationally
  - failures and what we can learn from them
  - what things will require changes—many barriers start from the top, such as agency missions; look at our laws, take the national view
  - sustainability/perpetuity and the limits of technocratic processes
  - how to bridge the gaps between agencies and other entities
3. Plan less, implement more.
4. Maintain continuity of contact between disciplines.

### **General conclusions**

The workshop was successful in creating a rare dialog among natural and social science disciplines and the humanities, and between all these areas and managers. It was also successful in generating ideas that may bear fruit with further development. The old-growth debates are about social and ecological ideas, many of which have been trapped within disciplinary boxes that create real or perceived conflicts or disconnects. These ideas need to be exposed and explored in ways that can lead to a better understanding of old growth by the publics who influence policy and management in the region. The participants in the workshop represent a brain trust and opinion leaders who have the potential to influence how people think about this issue. The workshop has served a useful purpose in energizing many of those people to take the next step in an interdisciplinary effort.

### **Post-workshop outcomes**

The follow-up to the workshop includes two products: 1) this report and a webpage; and 2) a book about old-growth forest conservation in the Pacific Northwest. We have developed a prospectus for the book (Appendix IV) and are moving ahead with plans to invite essays from many of the people at the meeting and put them together with synthesis chapters written by members of the organizing committee. The audience for the book would be general, not technical. Many technical reports have been written about old-growth forests in the Pacific Northwest. The niche for this book is the intersection of social and ecological perspectives with the intent to influence the thinking of the broader public on the matter. The goal will be to reduce some of the black and white thinking about old growth by describing some of the context and complexities that confound issue resolution. The book will suggest some strategies for moving ahead now that old growth has become an important forest management goal in the region.

## Appendix I. Attendees and contact information

Invited Experts			
Gail Achterman	Environmental Law and Policy	Oregon State University	<a href="mailto:Gail.Achterman@oregonstate.edu">Gail.Achterman@oregonstate.edu</a>
Clark Binkley	Economics	International Forestry Investment Advisors	<a href="mailto:csbinkley@comcast.net">csbinkley@comcast.net</a>
Rick Brown	Forest Ecology	Defenders of Wildlife	<a href="mailto:rbrown@portland.defenders.org">rbrown@portland.defenders.org</a>
Robert Brunoe	Manager	Warm Springs	<a href="mailto:rbrunoe@wstribs.org">rbrunoe@wstribs.org</a>
Andy Carey	Wildlife Ecology	PNW Research Station	<a href="mailto:acarey@fs.fed.us">acarey@fs.fed.us</a>
Wally Covington	Forest Ecology	Northern Arizona University	<a href="mailto:W.Wallace.Covington@nau.edu">W.Wallace.Covington@nau.edu</a>
Jerry Franklin	Forest Ecology	University of Washington	<a href="mailto:jff@u.washington.edu">jff@u.washington.edu</a>
John Gordon	Forest Ecology	Yale University	<a href="mailto:johngordon@fcgnetworks.net">johngordon@fcgnetworks.net</a>
Cal Joyner	Manager	USDA Forest Service, R6	<a href="mailto:cjoyner@fs.fed.us">cjoyner@fs.fed.us</a>
Nancy Langston	Environmental History	University of Wisconsin	<a href="mailto:nelangst@facstaff.wisc.edu">nelangst@facstaff.wisc.edu</a>
John Loomis	Resource Economics	Colorado State University	<a href="mailto:john.loomis@colostate.edu">john.loomis@colostate.edu</a>
Kathleen Moore	Philosophy	Oregon State University	<a href="mailto:kmoore@oregonstate.edu">kmoore@oregonstate.edu</a>
Mike Mottice	Manager	Bureau of Land Management	<a href="mailto:Mike_mottice@or.blm.gov">Mike_mottice@or.blm.gov</a>
Barry Noon	Wildlife Ecology	Colorado State University	<a href="mailto:brnoon@cnr.colostate.edu">brnoon@cnr.colostate.edu</a>
Gordon Reeves	Fisheries Biology	PNW Research Station	<a href="mailto:greeves@fs.fed.us">greeves@fs.fed.us</a>
Hal Salwasser	Management/Policy	Oregon State University	<a href="mailto:hal.salwasser@oregonstate.edu">hal.salwasser@oregonstate.edu</a>
Brent Steel	Political Science	Oregon State University	<a href="mailto:bsteel@oregonstate.edu">bsteel@oregonstate.edu</a>
John Tappeiner	Silviculture	Oregon State University	<a href="mailto:John.tappeiner@oregonstate.edu">John.tappeiner@oregonstate.edu</a>
Jack Ward Thomas	Wildlife Ecology	University of Montana	<a href="mailto:jwt@forestry.umt.edu">jwt@forestry.umt.edu</a>
Julia Wondolleck	Policy/Conflict Resolution	University of Michigan	<a href="mailto:juliaw@umich.edu">juliaw@umich.edu</a>
Invited Policy Makers and Managers for Afternoon of May 11			
Dave Allen	Regional Director	Fish and Wildlife Service	<a href="mailto:David_B_Allen@fws.gov">David_B_Allen@fws.gov</a>
Elaine Brong	State Director	Bureau of Land Management	<a href="mailto:Elaine_M_Brong@or.blm.gov">Elaine_M_Brong@or.blm.gov</a>
Marvin Brown	State Forester	Oregon Department of Forestry	<a href="mailto:marvin.brown@odf.state.or.us">marvin.brown@odf.state.or.us</a>
Mike Carrier	Natural Resource Policy Director	Governor's Office, Oregon	<a href="mailto:Michael.carrier@das.state.or.us">Michael.carrier@das.state.or.us</a>
Jim Golden	Deputy Regional Forester	USDA Forest Service, Region 6	<a href="mailto:jwgolden@fs.fed.us">jwgolden@fs.fed.us</a>
Linda Goodman	Regional Forester	USDA Forest Service, Region 6	<a href="mailto:ldgoodman@fs.fed.us">ldgoodman@fs.fed.us</a>
Bruce Mackey	Lands Steward	Washington Dept. of Natural Resources	<a href="mailto:bruce.mackey@wadnr.gov">bruce.mackey@wadnr.gov</a>
Tom Quigley	Station Director	PNW Research Station	<a href="mailto:tquigley@fs.fed.us">tquigley@fs.fed.us</a>
Russ Hoeflich	State Director	Nature Conservancy, Oregon	<a href="mailto:rhoeflich@tnc.org">rhoeflich@tnc.org</a>
Local Organizing Committee			
Tom Spies, (Chair)	Forest Ecology	PNW Research Station	<a href="mailto:tspies@fs.fed.us">tspies@fs.fed.us</a>
Denise Lach	Sociology	Oregon State University	<a href="mailto:denise.lach@oregonstate.edu">denise.lach@oregonstate.edu</a>
Sally Duncan	Sociology	Oregon State University	<a href="mailto:sallyduncan1@comcast.net">sallyduncan1@comcast.net</a>
Fred Swanson	Ecosystems	PNW Research Station	<a href="mailto:fswanson@fs.fed.us">fswanson@fs.fed.us</a>
John Cissel	Manager	Bureau of Land Management, Oregon	<a href="mailto:John_cissel@or.blm.gov">John_cissel@or.blm.gov</a>
Norm Johnson	Policy/Forest Management	Oregon State University	<a href="mailto:Norm.johnson@oregonstate.edu">Norm.johnson@oregonstate.edu</a>
National Commission on Science for Sustainable Forestry (NCSSF)			
Aaron Lien	Staff	NCSSF	<a href="mailto:aaron@ncssf.org">aaron@ncssf.org</a>
Chris Bernabo	Program Director	NCSSF	<a href="mailto:chris@ncssf.org">chris@ncssf.org</a>

## Appendix II. Workshop Agenda

Monday, May 9

Time	Activity	Purpose
6:00-8:00 pm	Reception – Main Great Room <i>Appetizers and Cash Bar</i>	Time for people to meet and greet, for those participants on site

Tuesday, May 10

Time	Activity	Purpose
7:30	Continental Breakfast – Gifford Pinchot Room	
8:30	Welcome and Introductions	Welcome participants, briefly explain purpose of workshop, how we're going to work, products, review agenda, answer questions  <i>Tom Spies, John Gordon, and Denise Lach</i>
9:00	Setting the Stage	Basic set up and overview of natural, political, and cultural issues related to the problem of old growth today.  Brief 10 minute presentations on different perspectives to get some of the major issues out on the table and ready for discussion.  <i>Tom Spies: new science, ecosystem dynamics</i> <i>Brent Steel: symbolic politics</i> <i>Cal Joyner: mgt perspectives</i> <i>Kathleen Moore: ethical and moral values</i> <i>Fred Swanson: synthesis</i>
<b>10:30</b>	Break	
10:45	Mapping the "Old Growth"	Begin mapping out the range of issues related to

	Problem	<p>the problem of old growth.</p> <p><i>Sally Duncan, Denise Lach, and Fred Swanson: Presentation of maps of major themes and provocative ideas emerging from essays</i></p> <p><i>Interdisciplinary Small Groups</i> : Identify issues missing from the map, especially ideas heard during introductions</p>
12:00	Lunch and Walk in the Woods	Lunch.
1:30	Walking in Your Shoes...	<p>“Cracking” open our thinking about the problem of old growth by approaching through another perspective/discipline. The idea is to help “break” disciplinary boundaries – colleagues and your own.</p> <p><i>Small Disciplinary Groups</i>: Identify an area that needs to be explored in more depth by people in the other two areas (i.e., don't worry about your own issues for a while). Identify issues that you think should be interesting for other groups – observers of the ecological world take on social and management issues, observers of the social world take on ecological and management issues, and observers of the management world take on the ecological and social issues.</p>
<b>3:00</b>	Break	
<b>3:15</b>	You've Got to be Kidding...	<p>Taking good ideas from others and using them to create ground-breaking, innovative, and provocative re-framing for own disciplines.</p> <p><i>Small, disciplinary groups</i> : Make the suggested issues “work” for your discipline – what would it take to make this idea a potentially groundbreaking concept in your discipline?</p>
<b>4:45</b>	Check-in and Preview	Quick synthesis and description of evening's activities, and tomorrow's tasks.
<b>5:15</b>	Break	
<b>6:00</b>	Dinner – East Dining Room	

<b>7:00-9:00</b>	Different Ways of Knowing – Recreation Building	For those interested, drumming session to give our brains a rest and our spirits a lift.
------------------	---	--

Wednesday, May 11

Time	Activity	Purpose
7:00	Continental Breakfast – Gifford Pinchot Room	
8:00	Re-cap	<p>Review previous day's work, today's agenda and schedule, products</p> <p><i>Tom Spies: synthesis of previous day's work, ideas about potential products (e.g., Island Press book or special issues of a journal)</i></p> <p><i>Denise Lach: today's agenda and schedule</i></p>
8:30	The Future of Old Growth	<p>Begin characterizing links and disconnects in current research, politics, and social values.</p> <p><i>Interdisciplinary small groups</i> : Based on yesterday's conversations and maps, identify critical linkages, overlaps, and disconnects among social and scientific issues related to old growth that may require intermediate to long term changes in how we think about and manage old growth forests. For example, how do the disciplinary issues relate to each other? What are the implications of having multiple overlapping understandings of old growth? What are the alternatives to science for telling us what old growth is?</p> <p><i>Whole group</i> : determine list of five issues to be presented to management guests to begin discussions</p>
<b>10:00</b>	Break	
10:15	Mapping Ideas for the Conversation with	<i>Interdisciplinary Groups</i> : Based on interest/expertise in a critical issue area, break into small groups to develop presentations for

	Managers	management guests. Describe and display in graphic format the issue (including driving and contributing forces) and key implications for science, management, and policy.
<b>11:15</b>	Dress Rehearsal	<i>Interdisciplinary Groups</i> : Brief presentation (~5 minutes) about critical issue and implications. Get comments, managers.
12:00	Lunch	Lunch with Management guests.
1:00	Engaging the Future	<p><i>Denise Lach: Introducing the initial map of issues (which contains ideas generated by both management and academic participants prior to the meeting). Describe process for “re-framing” that has been used.</i></p> <p><i>Interdisciplinary Groups</i> : Brief managers on new thinking about the critical issues related to old growth using map, focusing on big questions and issues. Address questions raised by management guests</p> <p><i>Tom Spies and Norm Johnson: Review and synthesize the issues</i></p>
2:30	Break	
3:00	Re-framing the “Problem” of Old Growth: Management Implications	<p>Capitalize on expertise to refine problems and questions and add management implications</p> <p>Interdisciplinary Groups including Management Guests: “Re-frame” the issues to include management and policy implications - including (1) short- and long-term needs, and (2) suggestions or recommendations for “next steps.”</p>
4:30	What's Next?	<p>Debrief ideas and conversations: major issues, what seems possible, what can be done now, etc.</p> <p><i>Tom Spies: Synthesize ideas, issues, and conversations.</i></p> <p>John Gordon: Future products, follow-up</p>
<b>5:30</b>	Celebrate	Informal gathering for those who wish to stay.

### Appendix III. Compiled questions from the first day of the workshop

#### Predominantly Social/Economic/Policy

How do you value non-market goods and services associated with old forests?

How are ecosystem services integrated into society?

How do we inform society about tradeoffs?

How do we overcome language barriers among specialists?

How do you restore trust? How can managers develop trustworthiness?

How do we really make decisions in a democratic society? Is chaos and gridlock the normal condition when issues are polarized?

Can agencies lay the groundwork for adaptive management? How do you empower front line managers to take new directions? What's in their way? What are impediments to collaborative management?

How do you define success in management?

Why collaborate? How does collaboration make your life easier rather than harder?

Why avoid conflict?

What do we do when managers are gone from the scene due to declining budgets?

How can active management be effectively explained to the public?

Where's the money going to come from without a timber program?

Why not privatize national forests?

How do you determine what is in the public interest or the common good?

How do you define "public"?

How can management systems be made flexible/nimble enough to respond to rapidly changing public values?

How can management processes bring out the best in people rather than the worst?

How do managers use/respond to science in the decision-making process?

How do managers honor their own values as they make management decisions?

How do you balance and sort competing interests?

What do managers and the public expect from ecological scientists? How can we ensure that questions posed to scientists remain relevant as they pursue them?

How do managers consider uncertainty in making their decisions?

What do people think about restoring old growth where it no longer exists?

Who says what is invasive?

When will you know that you know enough?

What use is the precautionary principle?

What kinds of monitoring results will help us change or support our current management path?

How do scientists perceive their role in the policy process? How do they defend the integrity of their work in the political process?

How can the scientific method be adjusted to help adaptive management to work?

How can we know we're not making big mistakes in science as have been made in the past?

Who is capable of reviewing complex interdisciplinary science?

How should managers use their understanding of societal values to implement laws, programs, policies? How do we increase awareness of social values as applied to forest management?

Assuming spiritual values of old-growth apply to all forests, how do we integrate those values into a management approach of “respectful stewardship”?

What are the constant, durable, long-term social expectations/values that should influence forest management? (sustainability, productivity, multiple use)

What are the ecological conditions when society feels forests are “old growth”?

What is the societal expectation for “life” of old-growth forests over time with no management intervention?

#### Predominantly Scientific/Ecological questions

How do you retain the wildness of old-growth when you manage it?

How do you grow an old-growth forest?

Can we manage old-growth with fire?

What do we lose from the system if we lose specific species?

What happens to existing old-growth forests if we do nothing?

What is wildness and how do you measure it?

What’s lost/gained by intensive versus extensive forestry?

What role do non-human vertebrates play in the forest?

What would be the difference in ecological functions between a virgin old-growth forest and a wild one? Is “managed” old-growth consistent with societal desires for old-growth?

What did we learn from AMAs?

What changes are needed in scientific methods (eg statistical procedures) to develop a more holistic view of the forest, rather than reducing everything to numbers?

Is old-growth a tree, a stand, mosaic, a uniform landscape?

What are the ecological conditions when a forest acts more like an old-growth forest than an older forest?

Without old-growth forests, what will we lose (species, processes etc)?

How much of the ecological processes and biodiversity in old-growth forests are hidden from the casual observer? Why should they care?

## Appendix IV Prospectus for the old growth book

### Statement of Purpose

The old-growth-as-icon campaign of the 1980s has led to dramatic changes in public ideas about forests and to changes in forest management on the ground in the Pacific Northwest. The old-growth icon, which is still in force today, may now be limiting our ability to achieve a broader suite of forest values given our new knowledge of forest dynamics, climate change, and social change. Although some authors have written about the old-growth debates no single publication has attempted to integrate a broad range of perspectives on old-growth forests and their future. Neither has any general-interest publication addressed the dramatic changes occurring during that time in our ecological and sociological understanding of the old-growth concept or how we might move forest conservation into the future given the symbolic power of old growth.

A number of events and developments have provided the rationale for publishing such a book at this time, among them:

- A successful conference in May, *Re-framing the Problem of Old-Growth*, was well-attended by leading thinkers and writers across multiple disciplines, as well as a variety of federal and state land managers;
- Improved understanding of complexity is emerging across multiple disciplines;
- The successful positioning of old-growth forests as regional icon in recent decades has become a barrier to achieving a broader understanding and to realizing a broader suite of forest values;
- The thinking of old-growth scientists is evolving
- Despite setting aside millions of acres of old-growth in recent years, efforts to preserve, harvest, or restore old-growth remain controversial ;
- Scientific approaches to understanding are under fire, budgets are under fire, all owners are under fire, management fights fire every summer; and
- Ten years of experience with old growth conservation on federal lands has given us some new perspectives on the ecological and social dimensions of the old-growth concept.

The book we are proposing, with the working title *Old growth in a new world: Forest Management Challenges in the Pacific Northwest*, will be written for the educated public, addressing the need to untangle conflicting ideas about old-growth, and investigating the implications of taking an explicitly cross-disciplinary approach to understanding evolving meanings of old-growth forests. Our intent is to collect an anthology of provocative and deeply inquiring essays from ecologists, economists, sociologists, managers, historians, silviculturalists, environmentalists, timber producers, and philosophers, to reveal the complexity of the concept and the reality of old-growth, and to encourage new and more comprehensive ways of thinking about forests.

The benefits of the proposed book include the fact that it:

- Brings together many leading old-growth researchers and the younger professionals they have mentored;
- Explicitly attempts to provide interdisciplinary perspectives across the full suite of old-growth change issues;
- Challenges old ideas and places new ideas in dynamic social and ecological contexts, thereby bringing the educated readership up to speed with current understanding, changes in thinking, and current managers' concerns and challenges;
- Is written in non-technical language for the lay reader;
- Potentially forms part of a cross-media package, with web sites, handbooks, and pictorial productions as knowledge partners;
- Provides a current and provocative anthology for natural resources, forest management, community development, cultural change and other such courses and seminars at the university level.

The primary audience we envision for *Old Growth in a New World* is the well-educated but non-technical general public, interested in natural resource management and other environmental issues across multiple disciplines. The non-technical writing style will also invite readership by scholars and academics, industry people, professional organizations, and land managers who seek to stay current with evolving ideas in their fields. An important secondary audience will be teachers and students of university, community college, and distance learning courses ranging from natural resource management to applied complexity theory in the social sciences. Given the global attention on old-growth in the Pacific Northwest, the book should have worldwide appeal and potential for translation into other languages.

The scope of the book is still under discussion, but will adhere strongly to a multidisciplinary philosophy in addressing old-growth issues in a thematic, rather than discipline-based, format. The book's subject matter is likely to cover the following areas:

#### Section I Reframing the problem

Part 1 Old growth as an icon: what have we wrought? Symbolic meanings of old-growth.

Part 2. How did we get here? Historical evolution of thought on old-growth, including dimensions of thought in ecology, social sciences, economics, policy and politics.

Part 3 The Challenge Now: New thinking on old growth and forests, redefining the icon for a complex world.

#### Section II: Perspectives on old-growth issue: Essays from leading thinkers

Part 1 Old-growth in turmoil: static ideas in dynamic ecological and intellectual landscapes

Part 2 Challenges to the Priestly Tradition: questions from outside the walls

Part 3 Old-growth in a new world: management quandaries

#### Section III: Living with an Icon: conserving resources in a symbolic world

Chapter 1. Synthesis of perspectives in essays—common views and divergent views

Chapter 2. Living with and managing icon forests: strategies for the future

Our intent is to bring the most recent and compelling ideas to the fore with this work, to help us engage a more productive discussion on the future of old-growth in the Pacific Northwest. Photos and graphics will be used liberally throughout the text, to increase readability. We anticipate some notes accompanying each chapter, but limited use of references within the text. A guide to further reading will be included with each chapter.

We anticipate completing an outline and having agreement from the full suite of authors by early fall. First drafts of manuscripts will be expected by early March 2006. During this period we will be actively soliciting a publisher. Peer review and revisions will all be returned by early June with the finalized manuscripts ready to send to the publisher by the end of September 2006.

