# Cascadia

*Newsletter of the Society for Ecological Restoration Northwest*

Spring 2006

**Special points of interest:**

- Effects of Forest Restoration Activities on Understory Composition and Diversity in Ponderosa Pine Forests of Eastern Washington, page 1 and 5
- Annual Meeting and Joint Regional Conference Update, page 1
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## Effects of Forest Restoration Activities on Understory Composition and Diversity in Ponderosa Pine Forests of Eastern Washington


Cara R. Nelson, Charles B. Halpern, and James K. Agee, *College of Forest Resources, Box 352100, University of Washington, Seattle, Washington 98195-2100*


Fire-adapted forests across the interior Northwest are increasingly susceptible to damage from insects, pathogens, and stand-replacing fires following decades of fire suppression. As a result, managers are employing thinning and prescribed burning treatments to reduce fuel loadings and to restore the stand structure, species, and processes that historically characterized these forests. However, the consequences of these activities for understory plant communities are not well understood. We examined the effects of thinning and prescribed fire on plant composition and diversity in ponderosa pine forests of eastern Washington. Data on the abundance and richness of native and non-native plants were collected in 70 stands in the

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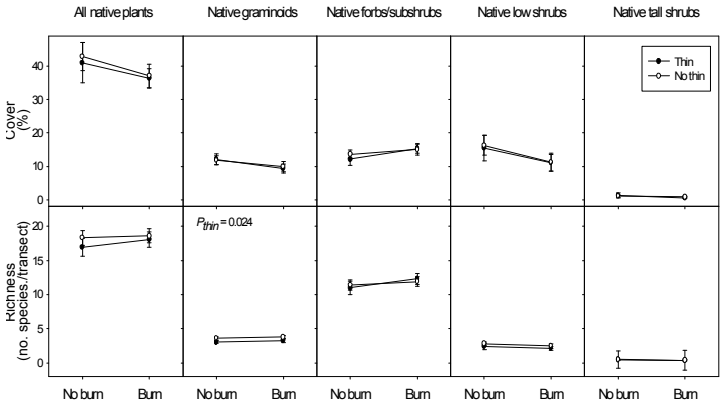



**Figure 1.** Cover and richness of all native plants and of native graminoids, forbs/subshrubs, low shrubs, and tall shrubs for stands with different thinning and burning histories. Values are means (± 1 SE). Closed symbols represent thinned stands; open symbols represent un-thinned stands. *P* values are reported for significant relationships (alpha level of 0.05) based on 2-factor ANOVAs.

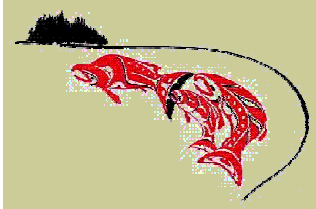
## Annual Meeting and Joint Regional Conference

This year SERNW and SWS PNW Chapter are joining forces for a joint conference and annual meeting. The event will be held May 2-4, 2006 at the Red Lion Hotel in Vancouver, Washington. The SERNW Annual Meeting is scheduled for the afternoon of May 3rd.

Peter Hummel, SERNW Program Vice President, and the conference committee have been hard at work securing speakers. See page 6 for a list of speakers and their topics. SERNW will host two tracks at the conference, one addressing effects of climate change and the other focusing on restoration projects on the Columbia Basin.

Frank Reckendorf created a great workshop on Streambank Erosion Control Alternatives. The workshop will cover planning and evaluation on streambank projects. Participants will receive a full day of training as well as a handouts of the presentation materials.

You can find more information about the joint conference including registration details on the SWS PNW website: http://pnw.sws.org/06meeting/index.htm



## 2006 SERNW Board Elections

**Members look for your ballot to arrive by email and follow directions for submissions by US mail, email or in-person at the Joint Conference in Vancouver, WA.**

### Program Vice President

*Jim Hansen (unopposed)*

James D. Hansen is a native of Washington, having grown up in Walla Walla. Jim received his B.S. in Biology from Seattle University (1968), his M.S. in Zoology from Oregon State University (1970), and his Ph.D. in Entomology from Washington State University (1977). He has been affiliated with New Mexico State University, Utah State University, the University of Hawaii at Hilo, and the University of Hawaii at Manoa. He has worked as a Research Entomologist at U.S. Department of Agriculture laboratories in: Logan, Utah; Hilo, Hawaii; Miami, Florida; and now at Wapato, Washington since 1996.

Jim has conducted aquatic insect surveys of the Yakima, Walla Walla, and Touchet Rivers, participated with The Nature Conservancy on revegetation surveys on the Hanford Reservation, and has worked with local grade and high school students on wetland assessment and restoration projects. Jim was the Program Vice President for the Pacific Northwest Chapter of the Society of Wetland Scientists for two years and helped organize the joint SER/SWS Portland conference in 2003. Jim's goals are to promote ecological restoration among students and local academic institutions, provide instruction to the public on recent restoration techniques, and to organize informative, productive chapter meetings.

### Publications Editor

*Adrienne Fox (unopposed)*

Adrienne Fox moved to Seattle in 1994 after graduation from Brown University with a degree in archaeology and art history. She has worked in various fields before pursing a career in natural resources. She received an Applied Associates of Arts and Sciences in Environmental Technology from Shoreline Community College to facilitate her understating of the natural history of the Pacific Northwest. Adrienne has been working in the natural resource field for the past 5 years using her skills from previous positions to keep her organized and making her a quick learner for any challenge in this field. Adrienne continues to expand her experiences through new opportunities, continued education and volunteer work as at WNPS Native Plant Steward. Currently she works for a global non-profit working to create a market for sustainably fished products through fishery certification and eco-labeling programs.

Adrienne came to SERNW to fill the vacant Publications Editor position in October 2005. She worked to update the website and add the Design to Dirt materials. Currently she overseeing the migration of the website to a new host with a new look and design. Adrienne feels she has just begun to make needed changes on the web and get the newsletter going again and wishes to continue the process over the next board term.

### Central Coast North Sub-Regional Representative

*Steve Erickson (unopposed)*

He has been working professionally within that broad area we call ecological restoration since the early 1980s, with his small firm, Frosty Hollow, providing various services throughout this time. He remembers the formative small conferences in the late 1980s which led to the formation of SER-NW. Fortunately, he is not as old and crusty as these last two sentences make him sound. He has been serving on the Board since 2001, first as Secretary, then as At-large representative. If elected as Central Coast North Representative, he will continue functioning as institutional memory on the Board, and work to see an expansion and more regularity on workshops and trainings presented by the Chapter.

## Icelands Sub-Regional Representative

*KV Koski (unopposed)*

Dr. K V. Koski recently retired from the National Marine Fisheries Service (NMFS), Alaska Fisheries Science Center where he was Habitat Coordinator and Task Leader for Habitat Restoration projects at the Auke Bay Laboratory (ABL) in Juneau, Alaska. He currently is working for the Nature Conservancy in Juneau as Director of Coastal and Marine Programs. He has a Ph.D. in Fisheries from the University of Washington where he studied chum salmon at the Big Beef Creek Fish Research Station on Hood Canal; he has a MS and BS in fisheries from Oregon State University. He has been responsible for supervising research on the importance of riparian and stream habitats for salmonids, including the impacts of logging, urbanization, and climatic changes. His research on the effectiveness of riparian habitat in protecting anadromous fish streams was instrumental in national and State legislation mandating buffer zones next to all salmon streams in Alaska. He is currently working on restoring water quality and salmonid fish habitat in urban streams and wetlands and in mapping nearshore marine habitats in southeast Alaska.

## South Coast Sub-Regional Representative

*Bob Korfhage (unopposed)*

Bob Korfhage is a long time resident of the Pacific Northwest raised in Walla Walla, Washington. Bob is currently retired. He received his BS in Range Ecology from Washington State University and a MS in Wildlife Habitat Management focusing on Elk Food Habits in the Blue Mountains of Oregon through Fecal Analysis. He is a 32 year employee with the Bureau of Land Management (twenty years as a manager and also served as a wildlife biologist and planning and environmental coordinator). And Bob also served as the BLM management representative on a team of NW scientist developing a long term monitoring strategy for the Northwest Forest plan Survey and Manage species. He has held positions in Wyoming, Idaho, Northern California, and Medford, Oregon and now resides in Phoenix, Oregon.

Bob would like to serve on the Board for the Northwest Region of the Society of Ecological Restoration as it will allow him to continue his passion for dealing with land management from an ecological perspective. In particular, the restoration of lands that have been mismanaged neglected or abused. He believes his administrative skills and ecosystem knowledge can assist the organization with its mission as well as the recruitment of new membership.

## At-Large Representative

*David Wooster (unopposed)*

David Wooster received a PhD in Biology from the University of Kentucky in 1997 studying the predator-prey ecology of stream organisms. At the University of Maryland he did post-doctoral research on the impact of resource quality and resource patch arrangement on the colonization dynamics of stream invertebrates. In 2001 Dr. Wooster accepted a tenure-track position as a "Riparian Entomologist" with Oregon State University at the Hermiston Agricultural Research and Extension Center as a split appointment with his wife, Dr. Sandra DeBano. Since coming to eastern Oregon they have been involved with a number of collaborative projects with the Confederated Tribes of the Umatilla Indian Reservation that include the bio-assessment of tribal riparian restoration projects, the assessment of a local watershed (the first step in developing a management plan for the watershed), and an analysis of the diet of juvenile Chinook salmon in the Umatilla River. In addition, they have started two more collaborative projects with the tribes on the impact of surface water withdrawals on macroinvertebrate, fish, terrestrial riparian invertebrate, and riparian plant communities and a long-term assessment of a restoration project in which the historic meandering channel of Meacham Creek will be reactivated. We are currently gathering baseline data on macroinvertebrates and will follow changes in macroinvertebrate community structure over time. Finally, Dr. Wooster and Dr. DeBano have also started a collaboration with The Nature Conservancy on assessing the impacts of a series of restoration projects in Camp Creek.

Dr. Wooster has a strong interest in restoration ecology and feels that there is a need for developing the science behind restoration (both in how restoration should be accomplished and in how project effectiveness should be assessed), for developing better collaborations among scientists in different disciplines that are involved with restoration, and for improving public outreach regarding restoration. Sitting on the SERNW Chapter Board would allow him to take part in these important developments and would broaden his own experiences with restoration ecology.

## Letter from the President

*"Of great concern is recruitment of new members and volunteers to fill board positions."*

*Board President, Jake Jacobson*

Greetings –

It's already been a year since our regional conference in Seattle! Now it's only a month until we meet again in Vancouver, Washington as partners with the Society of Wetland Scientists PNW Chapter at our joint regional conference (http://pnw.sws.org/06meeting/index.htm). Looking ahead, it's only another year until we host our next regional conference. We don't know where our conference will be, but we know it will be great! Conference planning aside, what else are we doing?

Have you been to our website lately? http://www.sernw.org/default.htm We've made some changes and added tools to help you in your work. Check out the library of reference documents we have posted under the Design to Dirt section. Shortly we will have a new site in conjunction with SER International.

We held a two-day board retreat in January, where we tackled some long range planning issues, some short term action items, and some of the regular things we just needed to get done. Of great concern is recruitment of new members and volunteers to fill board positions. We are now an ALL volunteer organization and without any paid staff we need to rely more on our members and board to get things done. There are many committees to join for those who are interested.

Board elections are also on the horizon. If you are not familiar with the process, here it is in a nutshell: All board positions are two year commitments; half of the positions are open each year. Contact Cara Nelson crnelson@u.washington.edu if you are interested in a position on the board. Please consider getting involved with us. You'll learn a whole lot.

Our annual meeting takes place in Vancouver, WA the afternoon of May 3rd at the SERNW/SWS joint regional conference. On the agenda for the meeting is committee reports, review of our proposed bylaws changes and an update on the state of the organization. We'll also have awards for distinguished service.

Finally, I want to thank all those folks who have donated their time and efforts in the past to help get us get to where we are today, and I want to ask you to be with us into the future!

John (Jake) Jacobson
President

## Effects of Forest Restoration Activities on Understory Composition and Diversity in Ponderosa Pine Forests of Eastern Washington

Colville, Okanogan, and Wenatchee National Forests. Stands represented one of three types of fuel-hazard reduction treatments (or a control) conducted 3-20 yr prior to sampling: thinning, burning, thinning plus burning, or no treatment.

Multivariate analysis revealed no significant effect of thinning or burning on understory plant composition. Similarly, there were no significant differences among treatments in the cover or richness of native plants (Figure 1). In contrast, non-native plants showed small, but highly significant, increases in both cover and richness in response to thinning and/or burning (Figure 2). The combined treatment (thinning plus burning) yielded the greatest abundance and richness of non-native plants, although cover rarely exceeded 2% in any treatment (Figure 2). Analysis of temporal trends suggests slight increases in the abundance of non-native species with time in only burned treatments. Although thinning and burning may promote invasion of exotic plants in these forests, our data suggest that increases in their abundance and diversity are limited. For more information on this study contact Cara Nelson at crnelson@u.washington.edu.

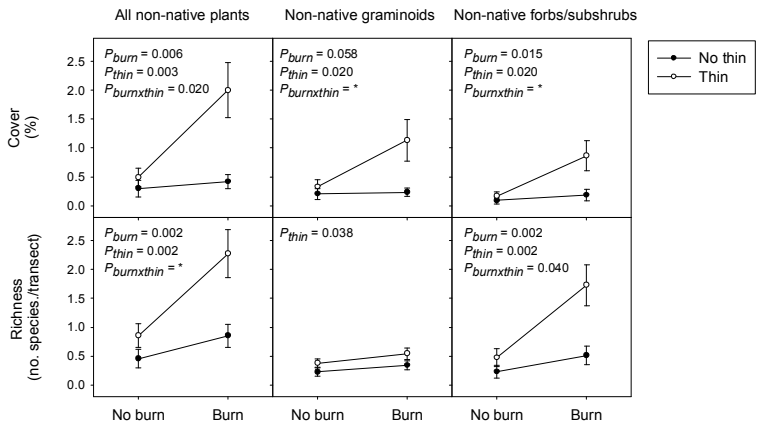



**Figure 2**. Cover and richness of non-native plants and of non-native graminoids and forbs/subshrubs for stands with different thinning and burning histories. Non-native low or tall shrubs were not found on study sites. Values are means (± 1 SE). Closed symbols represent thinned stands; open symbols represent unthinned stands. *P* values are reported for significant relationships (alpha level of 0.05) based on 2-factor ANOVAs; asterisks denote $0.1>P>0.05$.

*"Although thinning and burning may promote invasion of exotic plants in these forests, our data suggest that increases in their abundance and diversity are limited."*

*Cara Nelson, Charles B. Halpern, and James K. Agee*

## Hey SERNW Members, We need your help!

By Adrienne Fox, Publications Editor

I'd like to take this opportunity to introduce myself. I am Adrienne Fox, the current Publications Editor for SERNW. I came on board in October to fill the empty board position. Little did I know how much there was to do! The hardest part is getting enough material and generating content for both the website and the newsletter. We feel strongly that our members should have fresh ideas and new topics to ponder on a regular basis. We hope to make that happen this year with your help.

As our President mentioned in his letter this issue, we are now an all volunteer organization. That means that each board member has quite a bit to do already without contributing all the content of the web and newsletter. That's where **YOU** as our SERNW membership come in. I encourage you to send in articles and photos about your projects and research. In the past *Cascadia* has been a great resource for members and I want to continue that legacy.

Exciting news for the website, we will be moving to a new host with a new format! You can still reach us at www.sernw.org, but we hope to have a whole look by the end of April.

*Send inquiries regarding requirements for newsletter submissions to info@sernw.org.*

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## May 4th Conference Speakers for SERNW

**Nate Mantua, *UW Climate Impacts Group*,** Climate change impacts on aquatic ecosystems of the Pacific Northwest

**Alan Hamlet, *UW Climate Impacts Group*,** Hydrologic Implications of 20th Century Warming in the Western U.S.

**Joshua Lawler, *OSU Zoology*,** Climate-induced continental shifts in species distributions: implications for the Pacific Northwest.

**Jim Evans, *The Nature Conservancy*,** Biodiversity and Global Change in an Inland Northwest Ecosystem: Examples from the Hanford Site

**Dennis Martinez, *Indigenous People's Restoration Network*,** Can Traditional Indigenous Cultural Practices and Knowledge Mitigate Climate Change and Help Salmon Recovery in the Rivers of the Fraser-Columbia Plateau and Coastal Pacific Northwest?

**Gary A. James, *Fisheries Program Manager, Confederated Tribes of the Umatilla Indian Reservation*,** Successful Restoration of Water and Salmon in the Umatilla and Walla Walla Basins in NE Oregon and SE Washington.

**Katrina Strathmann, *Yakama Nation Wildlife Resource Management*,** Shrub-steppe restoration for Greater Sage-Grouse on the Yakama Reservation

**Chris Hyland, *Project Manager, U. S. Army Corps of Engineers*,** Liability/Risk and/or Lessons Learned

**Patricia McQueary, *Washington State Department of Transportation*,** The U.S. 12, SR 124 to Wallula Project, A Success Story in Cooperation and Design

**Kenneth Gano, *Washington Closure Hanford*,** Revegetation of Remediated Waste Sites on the Hanford Site in South-Central Washington

**The Mission of SERNW is to promote ecological restoration as a means of sustaining the diversity of life in the Cascadia bioregion by respectfully reconnecting Pacific Northwest cultures and ecosystems.**

## Design to Dirt Update—by Jake Jacobson

SERNW and partners produced our most successful training event to date - our Design to Dirt Workshop Series. 81 different people took our training this past fall, and asked us for more

We hosted 3 days of training, one on each of the following themes: Site Maintenance: the Bane of Habitat Restoration, Vegetation Monitoring: Measuring Success and Design and Implementation.

Dan Grosboll, Sarah Cooke, Birdie Davenport, Sasha Shaw, and Roy Brunskill shared their expertise on site maintenance methods, problems and tools. See the Weed Maintenance Schedule that was developed in the Design to Dirt section of our web page.

Peter Dunwiddie, Scott Moore, Fred Bergdolt, and Lucinda Tear lead participants through the ins and outs of vegetation monitoring and shared useful tips.

Dyanne Sheldon, Susan Buis, and Bob Keller imparted the secrets to design and implementation in the third session. Session chair Paul Cereghino prepared a detailed list of handouts, many of which are on the SERNW website and deserve a look.

Thank you to all the volunteers, session coordinators (Paul Cereghino, Scott Moore and Gary Smith) and speakers who donated their time to make this a event affordable and provide such high quality training.

Special thanks to our sponsors, King County Waterworks, Snohomish County, NOAA Fisheries, and Washington Native Plant Society.