

NORTHWEST OREGON ECOLOGY GROUP NEWSLETTER

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The Northwest Oregon Ecology Group is an association of ecologists with a wide range of interests from the Mt. Hood, Siuslaw and Willamette National Forests, the Columbia River Gorge National Scenic Area, and the Eugene and Salem Bureau of Land Management Districts. The group works from local to regional scales to provide tools, assessments, and analyses for ecological issues for planning, managing and monitoring forest ecosystems in Northwest Oregon. Through their own efforts, and affiliation with ecologists with Oregon State University, University of Oregon, Oregon Department of Fish and Wildlife, University of Washington, and private consultants, they have developed products most resource managers use every day.





Climate Workshop Held on the Willamette

Katie Isaackson, Public Affairs, Willamette National Forest



In January 2011, the Willamette Climate Change Committee held a workshop, Integrating Science of Climate Change with Vegetation and Aquatic Resource Management. This was the first of several workshops designed to address the issue of climate change as it relates to the Forest. The two-day event drew over 70 people who were interested in hearing from resource scientists, as well as

discussing how to incorporate climate change into their work plans.

The topic of this workshop focused on effects to aquatic and vegetation resources. In the first day, speakers from the PNW Lab, including Gordie Reeves - Research Fish Ecologist, Paul Anderson - Research Forester, and Dave Peterson - Wildland Fire Sciences, and local experts such as Cindy McCain - Ecologist and Dave Kretzing – Earth Scientist, presented the potential localized impacts to resources in the Willamette Valley and the Cascades area.

The following day, everyone divided into three groups to discuss the information from the previous day and determine what additional tools and knowledge they would need to adapt to a changing climate.

"The desired outcome of the workshop was to provide our workforce an opportunity to explore and discuss the issue of climate change on the Willamette NF so that they are better able to apply current science to our resource management," said Cheryl Friesen, Science Liaison for the Willamette NF, who facilitated the event. "I feel we were successful and I look forward to more workshops this year."

The Willamette Climate Change Committee formed in 2008 after the Willamette Leadership Team identified climate change as an important issue. The Committee is made up of representatives from a variety of resources areas who work to develop awareness of climate change science as it relates to forest management.

Future workshops will focus on climate change influences on wildlife and cultural resources.

TIPS ON MEADOW RESTORATION: TO SEED OR NOT TO SEED

Cindy McCain, Willamette and Siuslaw NF Ecologist and Charlie Halpern, University of Washington

Biologists and botanists on the Willamette NF were struggling with some difficult questions about seed collecting and sowing for meadow restoration aimed at conifer removal, particularly in meadows treated with prescribed burns that include burn piles. Questions included: Is burning or repeat burning necessary? Is seeding necessary? If the meadow contains a mix of grasses and forbs, should we be collecting and seeding a representative mixture? Would this require collecting seeds over the growing season as different species set seed? Would seeding only particular species cause a significant shift in composition?



1 year after pile burn.

Charlie Halpern offered some thoughts:

- Burning or multiple burns may only be appropriate at some elevations and in some meadow types. Burning may not be necessary (or advisable) in other types.
- If burning has the potential to lead to adverse effects (e.g., exotic invasions), consider whether it is possible to remove slash rather than burn it.
- If burn pile scars are slow to heal, consider raking in litter and organic material from adjacent unburned vegetation to improve soil conditions and the potential for ßreestablishment of native species.
- If weeds (native or exotic) are not an issue in or

around your site, consider whether you need to seed at all. Early results from the Bunchgrass Meadow restoration experiment suggest that the natural process of dispersal may be adequate.

- If weeds (particularly exotics) are an issue, consider spot treatment (manual removal or herbicide application) before burning.
- If you seed only small areas (burn piles or severely burned spots), then you are unlikely to affect the broader composition of the meadow.
- Ultimately, what you sow may not be what germinates given the abundance of seed in the seed rain, the activities of small mammals, and the vegetative spread of rhizomatous or stoloniferous species.
- The ability to reintroduce particular forb species from seed may require an understanding of the reproductive biology and germination requirements of the species. Transplanting plugs may be possible, but only on a small scale.



2 years after pile burn.

For more thoughts on what to expect with different meadow restoration techniques, check out the Bunchgrass Ridge website, which is undergoing updating and re-vamping.

http://depts.washington.edu/bgridge/

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The Northwest Oregon Ecology Group relies on a variety of professionals throughout the area to support their activities. The following ecologists and biologists also contribute to the program.

Linda Geiser, Lichenologist and Air Quality Specialist, Siuslaw National Forest. Specialty: Lichens.

Tom O'Neil, Ecologist, Northwest Habitat Institute. Specialties: Oak restoration, wildlife habitat, and biodiversity data management.

John Christy, Ecologist, Oregon Natural Heritage Information Center. Specialties: Wetland ecology and mosses.

Allison Reger, Analyst, Willamette National Forest. Specialties: VDDT modeling, and landscape analysis. Stu Johnston, Forest Silviculturist, Siuslaw National Forest. Specialties: Forest Vegetation Simulation (FVS) modeling.

Laura Brophy, Estuarine Biologist, Director, Estuary Technical Group, Institute for Applied Ecology. Specialties: Wetland ecology.

Dirk Shupe, Fire Planner, Willamette National Forest. Specialites: Fire behavior modeling, landscape planning.

Marty Stein, Botanist, Siuslaw National Forest. Specialites: Invasive species management, dunes vegetation.