



# NORTHWEST OREGON ECOLOGY GROUP NEWSLETTER

## Version 13.0 May 2014

The Northwest Oregon Ecology Group is an association of ecologists with a wide range of interests from the Mount 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.

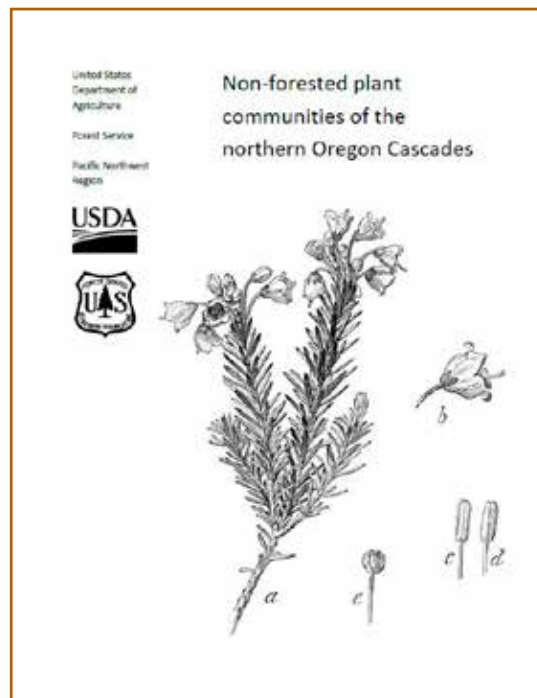


## NEW RELEASE!!

### Non-Forested Plant Communities of the Northern Oregon Cascades Guide

Cindy McCain, Northwest Oregon Ecologist, emeritus;  
Charlie Halpern, University of Washington;  
Sara Lovtang, Ecologist, Deschutes NF

*The Non-Forested Plant Communities of the Northern Oregon Cascades Guide* is now available!



This invaluable guide contains descriptions of fifty-nine plant communities across fairly stable wetland, meadow, shrubland, and rock garden habitats of the northern Oregon Cascades. It describes the principal plant species and their environments. The biogeographic range of the guide spans montane, subalpine, and alpine environments of the Willamette and Mount Hood National Forests, as well as the Three Sisters and Mount Jefferson Wilderness areas of the Deschutes National Forest.

Please contact Jane Kertis ([jkertis@fs.fed.us](mailto:jkertis@fs.fed.us); 541-750-7192) to request a printed copy. There will be a limited number available.

Electronic versions can be downloaded from:

<http://ecoshare.info/2014/03/19/non-forested-plant-communities-of-the-northern-oregon-cascades/>

# Red Mountain -White Mountain Heather Special Habitats From Space! LIDAR Proving Valuable (but don't throw away your Danner's)

Doug Glavich, Northwest Oregon Ecologist; Wes Wong, Northwest Oregon Ecologist;  
Hugh Snook, Forester, Salem BLM

A lot of boot leather was worn down during the summer 2013 field season, as a group of ecologists field-checked and collected vegetation data from 164 special habitat polygons across 8 USGS quads. They also looked for “unclassified” plant communities that could be targeted for sampling and characterization in the summer of 2014. The group is testing the use of LIDAR-based mapping, and the results are positive: the technique appears to work well for delineating and typing special habitats.

Northwest Habitat Institute (NHI) has used LIDAR to map an additional 13 quads for the 2014 summer adventure. The team will focus field checks on vegetation types with a limited sample from last year's surveys, as well as those



that might be potential sites for new classification. Coast range shrublands and meadows, and “bogs-emergent” vegetation are of particular interest this year. A draft data card and preliminary classification sampling approach are in development and ready to field-test soon. Sampling tests will occur in late April to early May, and field work should be in full swing by mid-May.

The ecologists are also testing additional mapping methods. A test quad, created by FS Regional Office remote sensing specialists using an automated polygon delineation approach with Ecognition software, is currently being examined by NHI. NHI is comparing it to their rigorous LIDAR - remote sensing approach to see if it could add value to their process.

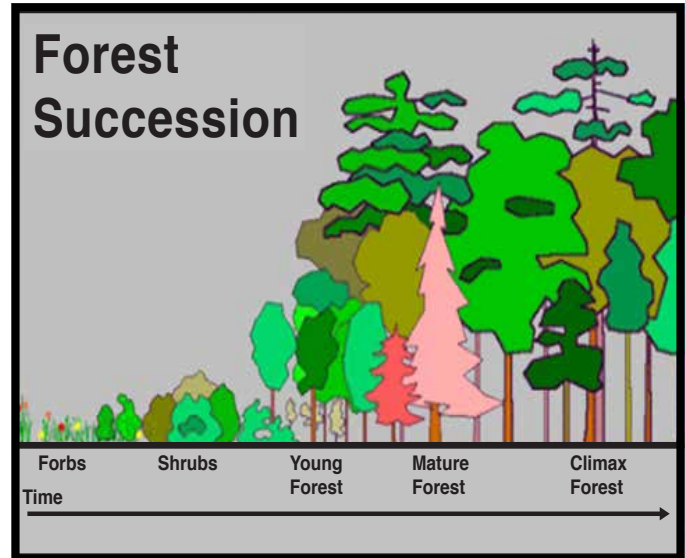


*Where do you draw the line between dry meadow and mesic meadow communities high up in the Oregon Coast Range?  
Doug Glavich compares special habitat boundaries that were delineated through automated eCognition remote sensing  
and manual on-screen habitat typing*

# Modeling Seral Stage Historical Range of Variability (HRV)

Jane Kertis, Northwest Oregon Ecologist; Allison Reger, Willamette NF Analyst;  
Lisa Helmig, Willamette NF Silviculturist

Three 500,000 acre landscapes on FS and BLM lands will be selected from the Coast and Cascades for analysis using the state and transition model ST-SIM. The process will result in historical ranges of seral stages. Ecologists are following similar methodology used by former FS Ecologist Miles Hemstrom, who is developing HRV for the eastside restoration effort. Progress to date includes modifying existing models, gathering current and potential vegetation layers, and getting the technology in place to implement the methods. The goal is to have initial HRV for composition/structure classes (that can be combined into seral stages) for the three landscapes by the end of the fiscal year. By this time next year, we will have a valuable tool in our tool box to support our landscape planning efforts in all of NW Oregon.



## Dunes Restoration Strategy Development

Jane Kertis, Northwest Oregon Ecologist; the Central Coast/Dunes Team, and Key Partners

How to restore dune ecosystems in the face of climate change and multiple stakeholder interests was a challenge for this year. The team is building a “story” of the dunes with their partners, and soliciting help to accomplish a suite of restoration projects. To date, they

have a “core developers” team formed, and are working to bring additional key partners into the process to serve as developers and steering committee members. They are also identifying key venues for communication. Want to help? Call Jane Kertis at the Siuslaw.





# Crowley Creek Estuary Restoration Monitoring: Evidence of Success!

Doug Glavich, Northwest Oregon Ecologist



*Crowley Creek and Salmon River*

The Crowley Creek marsh, a component of the Salmon River estuary, was the third restoration project being conducted in the area by the Siuslaw NF. This estuary has had a history of development on the tidal marsh, which includes the now restored Tamara Quays mobile home park and the Pixieland amusement park. The Crowley Creek area was diked in the 1950s for grazing, and the first round of restoration took place in 1996. The main dike paralleling the Salmon River was removed, but the dike along Crowley Creek and other small remnant dike pieces were left in place.

In August, 2012, the remaining dikes were removed to restore the hydrology to the marsh. Because reed canary grass and other invasive, exotic plants inhabit the adjacent area, native vegetation needed to be planted soon-after to ensure establishment and provide competition against invading plants. The Salmon-Drift Creek Watershed Council staff re-planted the disturbed dike removal areas over the winter of 2012-2013.

To monitor native plant establishment and invasive plant suppression, two vegetation transects were installed and data were collected in September 2013;

one in the main disturbed area of the tidal marsh, and the other in the adjacent native reference marsh. These data were recently analyzed, and a report was sent out to the project managers. The results look good so far. One year later, the disturbed marsh area is dominated by *Deschampsia cespitosa* (which was planted), along with *Scirpus maritimus*, *Eleocharis*, *Juncus*, and *Argentina edgeii*. Only a trace of reed canary grass was detected.



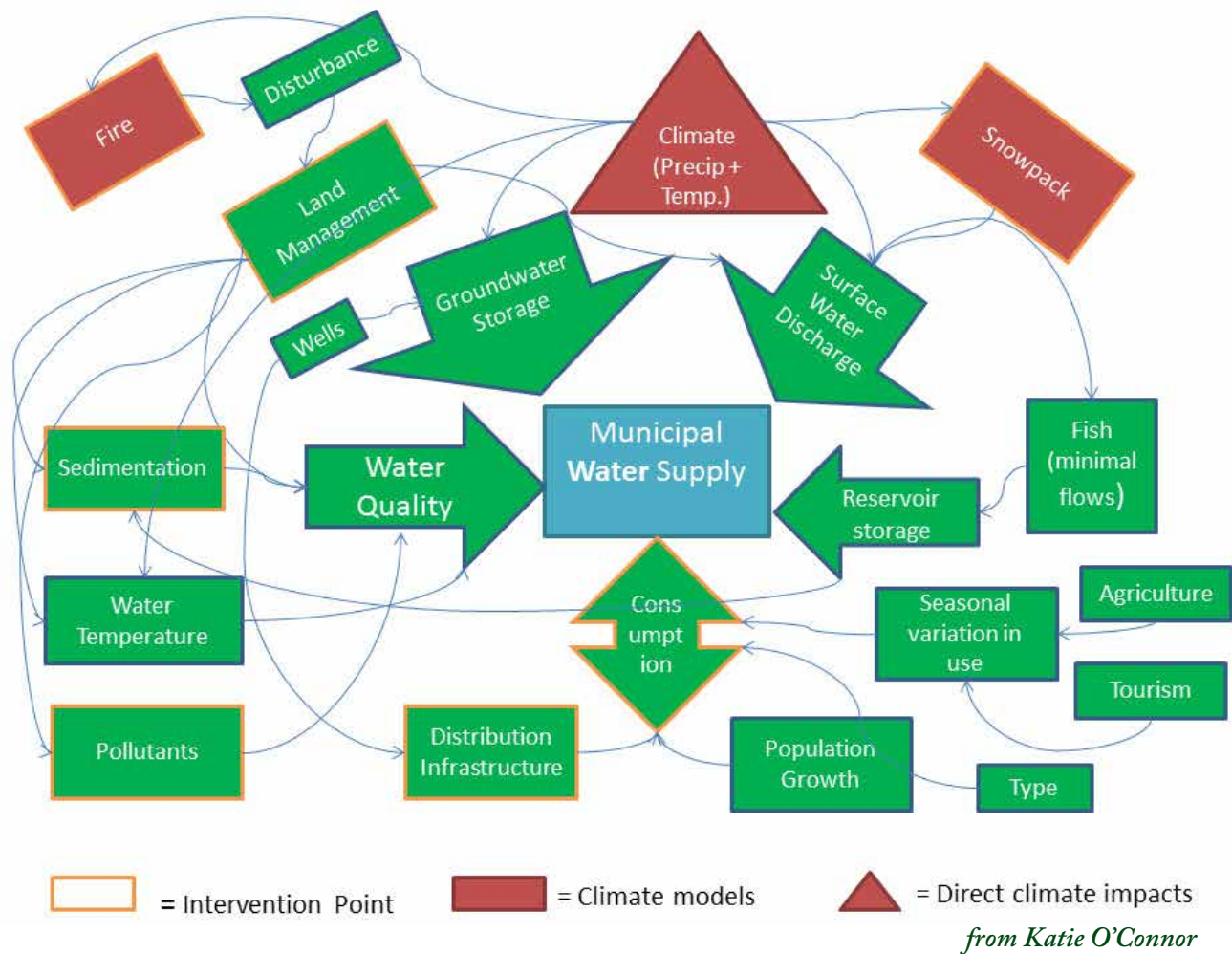
*Clarence Creek Meadow*

# Assessing Resource Vulnerability to Climate Change

Jane Kertis, Northwest Oregon Ecologist; Wes Wong, Northwest Oregon Ecologist;  
Cheryl Friesen, Science Liaison, Willamette NF; Hugh Snook, Forester, Salem BLM;  
and the Conservation Biology Institute

The NW Oregon Ecology Group is partnering with the Conservation Biology Institute (CBI) to develop a climate vulnerability assessment for the NW Oregon area. They received a \$105,000 NOAA Regional Integrated Science Assessment (RISA) grant, and are expecting funds by fall 2014. In the meantime, some funding from the FS RO Climate Change Program is serving to get the effort started in addressing one vulnerable resource in aquatics, vegetation, and wildlife habitat selected from a comprehensive list we compiled last winter. The project should provide good information that allows us to make progress towards accomplishing elements in the national climate change scorecard.

Two workshops were held in April to: A) identify drivers (including climate) on the subset of 3 vulnerable resources using the ACT framework; B) document impacts of drivers (including climate) on the selected resources using spatial data; C) identify gaps in data; D) articulate assumptions and hypothesis; and E) explore and test adaptation/mitigation actions that are practical, feasible and have high probability of success when implemented. They will be processing feedback on the tools and process to help guide continuation of the work in late 2014 using funding from the RISA grant.



*This conceptual model for Municipal Water Supply was collaboratively developed to identify actionable intervention points to crucial drivers which are common across NW Oregon National Forests and BLM Districts. Workshop participants assessed key resources vulnerable to changing climate through the stepwise ACT (Adaptation for Conservation Targets) process.*



# Bunchgrass Ridge Restoration Website – Newly updated, check it out!

Cheryl Friesen, Science Liaison, Willamette NF; Charlie Halpern, University of Washington



Conversion of grasslands and meadows to woodlands and forests is occurring globally, with profound consequences for biological diversity and other ecosystem services. In the Pacific Northwest, as in much of western North America, mountain meadows are increasingly threatened by the encroachment of conifers as a result of fire suppression, release from grazing pressure, and changes in climate. In the western Cascade Range, mountain meadows are key habitat elements in a landscape dominated by coniferous forests. They comprise <5% of the landscape, but serve critical ecological and societal functions: creating natural fire breaks, supporting distinctive communities of plants, providing habitat and forage for wildlife, and offering unique recreational opportunities. Since the 1940s, the extent of meadow loss may be as high 50% in some areas.

The Bunchgrass program of research, education, and outreach is devoted to the ecology, dynamics, and restoration of western Cascade meadows. The work highlighted on this website is centered at Bunchgrass Ridge, a 100-ha mosaic of dry montane meadows and encroaching forests in the Willamette National Forest, Oregon. Observational and experimental studies at Bunchgrass Ridge address a variety of questions including:

- the history and correlates of conifer invasion
- associated changes in vegetation and soils
- the role of gophers in meadow community structure
- the potential for meadow restoration using tree removal and prescribed fire

Our studies bring together university scientists and federal resource specialists, building on a long history of collaboration between the HJ Andrews Experimental Forest LTER and the Willamette National Forest. Key participants include the USFS McKenzie River Ranger District, University of Washington, Oregon State University, University of Victoria, and the USFS PNW Research Station. Check out our updated website at <http://depts.washington.edu/bgridge/> for information on this study. The site also includes links to additional meadow restoration science. A great resource one click away!



# Rocky Fire Photo Monitoring: Synthesis & Interpretation

Wes Wong, Northwest Oregon Ecologist

This digital “story board” and report will synthesize key ecosystem changes and lessons learned from ecological succession following the 1972 Rocky Fire. Four decades of monitoring photos within the burn perimeter have been located, compiled, and scanned. These digital images are being assembled into a dynamic on-screen pictorial version of a state-and-transition model. Several Barlow RD resource specialists provided positive initial feedback about using these products, which will be completed in June and posted online at <http://ecoshare.info/>. The visual sequence of vegetation changes, and the qualitative synthesis and interpretation report will inform upcoming planning efforts for integrated resources management at Mount Hood NF and on similar landscapes elsewhere.



**ECOSHARE**  
Interagency Clearinghouse of Ecological Information



Home Climate Change Products Projects ILAP IVMG CFLRP Soils About What's New



# Central Cascades Adaptive Management Partnership on the Web!

Cheryl Friesen, Science Liaison, Willamette NF

CCAMP has been actively bridging science and management interests for over 10 years. Much of our work is documented within the Ecoshare Website, graciously supported by Tom DeMeo and the Regional Ecologists (<http://ecoshare.info/projects/central-cascade-adaptive-management-partnership/>)

## Postings you might find of interest

### Tools:

1. **Early Seral Forest Vertebrates for W. OR and WA** - a set of excel tables that include a species list, species info, home range size, and population trends. If you want to know who lives there and why?, here's your answers!
2. **Early Seral Forest: A Conservation Conundrum** – this is a powerpoint presentation given to the FS Regional Silviculturists this past fall. Feel free to borrow – everything is non-proprietary.
3. **Roosevelt Elk Forage: Plant Community Relationships and Treatment Response Tool** - this is a series of excel spreadsheets that list high quality elk forage species and what plant communities they are associated with. A handy tool to answer the questions: Where are the stands with potential high quality elk forage species on my landscape? Does the stand I am proposing for treatment support high quality elk forage species? How will the plants respond to my proposed treatment?



### Videos / Powerpoint Presentations of Past Workshops:

- Landscape Assessment Tools and Processes For Forest and Project Planning
- The Science of Thinning in Riparian Reserves
- What's for Dinner: Spotted Owl Prey
- Meadow Restoration
- Young Stand Thinning and Diversity
- Restoring Westside Dry Forests
- Riparian Thinning Logic Paths
- Silvicultural Prescriptions
- Early Seral Forest 2010
- Using Past Ecological Conditions
- Restoring Ecosystems

### Best Available Science Synthesis Papers:

- Carbon Storage on the Willamette NF: What do the numbers mean?
- Best Available Science - Thinning Response Varies by Age of Stand
- Best Available Science - Gaps
- Best Available Science - Thinning and Dead Wood

### COMING SOON!

Best Available Science - Riparian Reserves:  
What did the NWFP have in mind for them, and how can they be managed?





## Contact Information for the Northwest Oregon Ecology Group:

Jane Kertis, Northwest Oregon Ecologist,  
Siuslaw, Willamette and Mount Hood National Forests  
E-mail: [jkertis@fs.fed.us](mailto:jkertis@fs.fed.us)  
Phone: 541-750-7192

Hugh Snook, District Silviculturist,  
Salem District BLM  
E-mail: [hugh\\_snook@or.blm.gov](mailto:hugh_snook@or.blm.gov)  
Phone: 503-315-5964

Robin Dobson, Botanist/Ecologist,  
Columbia River Gorge National Scenic Area,  
Hood River, OR  
E-mail: [rdobson@fs.fed.us](mailto:rdobson@fs.fed.us)  
Phone: 541-308-1706

Cheryl Ann Friesen, Science Liaison,  
Willamette National Forest and  
Central Cascades Adaptive Management Partnership  
E-mail: [cfriesen@fs.fed.us](mailto:cfriesen@fs.fed.us)  
Phone: 541-822-7226

Jennifer Lippert, Forest Botanist,  
Willamette National Forest  
E-mail: [jlippert@fs.fed.us](mailto:jlippert@fs.fed.us)  
Phone: 541-465-6440

Christopher Landgon, Wildlife Biologist,  
Upper Willamette Resource Area, Eugene BLM  
[clangdon@blm.gov](mailto:clangdon@blm.gov)  
541-683-6693

Wesley Wong, Northwest Oregon Ecologist,  
Mount Hood, Siuslaw and Willamette National Forests  
E-mail: [wwong@fs.fed.us](mailto:wwong@fs.fed.us)  
Phone: 503-630-8836

Doug Glavich, Northwest Oregon Ecologist/Botanist,  
Siuslaw and Willamette NF's  
E-mail: [dglavich@fs.fed.us](mailto:dglavich@fs.fed.us)  
Phone: 541-750-7048

Corbin Murphy, Wildlife Biologist,  
Cascades Resource Area, Salem District BLM  
E-mail: [cjmurphy@blm.gov](mailto:cjmurphy@blm.gov)  
Phone: 503-375-5646

Jose Dieguez, Biological Technician,  
Cascades Resource Area, Salem District BLM  
E-mail: [jdieguez@blm.gov](mailto:jdieguez@blm.gov)  
Phone: 503-375-5646

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.

Brett Blundon, District Fisheries Biologist,  
Eugene BLM.  
Specialties: Stream Ecology.

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

Patricia Jonston, Plant Ecologist  
Eugene BLM.  
Specialties: Plant Ecology.

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

Lisa Helmig, Forest Silviculturist,  
Willamette National Forest.  
Specialties: Landscape assessment and planning.

Program Design: Alan Work, Mountain Hawk LLC, Graphic Design and Interpretive Services, [www.mountainhawk.org](http://www.mountainhawk.org)

