Volume 6, Issue 2
March / April 2008

UNIVERSITY OF WASHINGTON • COLLEGE OF FOREST RESOURCES • COLLEGE OF OCEAN & FISHERY SCIENCES

UNIVERSITY OF WASHINGTON Olympic Natural Resources Center

ONRC UPDATE

Director's Message

John Calhoun, *Director*

This issue of *ONRC Update* is dedicated to introducing a new collaborative initiative to focus research efforts on a particular line of investigation. Federal and state forest resource managers in Washington are working to develop strategies to restore forested landscapes so they can better support species that depend upon more complex forest structures (i.e., old growth-like forests).

One strategy is to lock it up and hope for the best. Many forest scientists believe a more active approach, using well-know principles of silviculture and stand dynamics, can better achieve the policy goals and provide economic contributions at the same time. The Restoration Silviculture Initiative is a planned focus by researchers to test the assumption that this hypothesis is correct.

While the structure and activities of the Initiative are still under development, scientists at ONRC and the USDA Forest Service Pacific Northwest Research Station are developing a series of fact sheets—the first of which is included in this newsletter—and other communication tools to spread the word and share the work. We expect to develop a web page for the Initiative and sponsor workshops and field trips to help managers understand the potential of restoration silviculture practices to help achieve landscape scale goals.

This issue of *ONRC Update* introduces a new collaborative effort that will develop strategies to restore forested landscapes to better support species that depend upon more complex forest structures (i.e., old growth-like forests).

We hope the Restoration Silviculture Initiative will help forest managers answer the questions

- How can we add complexity to otherwise simplified forests?
- How do we select the stands that have the highest probability of success in achieving our management objectives?
- How can we manage all of the stands in a landscape simultaneously?

How do we better define our management objectives?

Much of the underlying work in support of this Initiative has been produced by ONRC scientists with financial support from Pacific Northwest Research Station. This partnership is contributing to our ultimate goal: promoting intentional learning and supporting science-based policy.

ONRC UPDATE is published bimonthly by the
University of Washington Olympic Natural Resources Center, PO Box 1628, Forks WA 98331
(360) 374-3220 or from Seattle (206) 685-9477 Website: www.onrc.washington.edu
Newsletter Editor: Ellen Matheny – ematheny@u.washington.edu (360) 374-4556

FACT SHEET: Introducing the Restoration Silviculture Initiative

John Calhoun, *Restoration Silviculture Initiative*

Why restoration silviculture?

On forest landscapes where timber harvest objectives were historically dominant, ecological values frequently associated with older, more complex forest structures are often underrepresented. Landscapes are often dominated by younger, less complex forest stands. As a result, many public forest land managers now face the important goal of restoring forested landscapes in order to sustainably support multiple values. These usually include a broad array of ecological benefits combined with some level of revenue production. Importantly, many forest managers are specifically required to sustain species dependent upon old forest conditions. Because of this multi-resource emphasis, restoration of landscapes dominated by young, less complex forests has become one of the primary driving forces in contemporary public forest management.

We believe that the application of sound silvicultural principles, actively applied, is critical to achieving restoration goals in support of multiple objectives while also maintaining commercial appeal when possible. This "restoration silviculture" approach involves the design and implementation of appropriate silvicultural systems. Modeling expected outcomes and quantifying ecological and economic outputs from restoration silvicultural practices creates an opportunity for sharing lessons learned.

What is the Restoration Silviculture Initiative?

Over the past few years, the Olympic Natural Resources Center (ONRC) has produced a growing body of analysis and information on using principals of stand dynamics to restore simplified forests and landscapes to a more complex state. Both upland and riparian forests are addressed. It is believed that multiple values can best be sustained from landscapes rich in old forest structures and actively managed. Desired benefits include clean water and habitat for wildlife species such as spotted owls and marbled murrelets, and for aquatic and riparian species such as amphibians and salmonids, as well as social values such as viewsheds and recreational experiences. To enhance the applicability of the research, ONRC has generated input from user groups throughout the research process.

Anticipating that further research will continue to come out of this important field, and hoping to build partnerships and generate interest, we have launched a Restoration Silviculture Initiative, based on the foundation of research already completed or underway. Some of the broad topics we are exploring include:

- How can we add complexity to otherwise simplified forests?
- How do we select the stands that have the highest probability of success in achieving our management objective?
- How can we manage all of the stands in a landscape simultaneously?
- How do we better define our management objectives?

Where do we plan to go from here?

We intend to continue conducting analyses and working to understand how research can support management needs. As part of our outreach effort, we will produce a series of fact sheets as well as other written material tailored to forest managers. Workshops and symposia will help communicate principles of restoration silviculture to forest planners and managers. The initiative will facilitate and encourage collaboration among scientists that share research goals. In addition, we plan to continue building partnerships with public forest agencies, private industry, and private farm foresters, and expand on them through broadened research endeavors and outreach.

The guiding principal of the Restoration Silviculture Initiative is that we believe we can apply the principles of silviculture and stand dynamics to forest restoration goals to increase the productivity and resilience of forests, and create functionally and structurally complex stands over the landscape. In the process, we hope to work toward our ultimate goals of promoting intentional learning, and supporting science-based policy.

What is the Olympic Natural Resources Center?

ONRC was created by the Washington legislature in 1991 as a research and education center administrated by the University of Washington College of Forest Resources. Its mission is to provide sound science to support forest management methods that integrate ecological values and commodity production. Through demonstrations of innovative methods, education programs, and partnerships, ONRC helps address critical issues in the region, and supports resource managers and policymakers as they seek pragmatic solutions. To advance these purposes, ONRC recently entered into a Memorandum of Understanding, joining the common interests of the USDA Forest Service Pacific Northwest Research Station, Washington State Department of Natural Resources, and Olympic National Forest. The Restoration Silviculture Initiative was inspired by this collaboration.