



The Many Faces of Pack Forest

By Andrea Watts

When you visit the Charles L. Pack Experimental Forest, you are not just taking a walk through a forest, you're seeing sustainability in action. Through spacing trials, selection thinning, fertilizer treatments, and ecosystem-value services research, the Center of Sustainable Forestry demonstrates that sustainability and active forest management are not mutually exclusive.

Got Its Start 87 Years Ago

Located outside of Eatonville, Wash., the University of Washington's Pack Forest began with the purchase of 334 acres in 1926 from a bequest by Charles L. Pack, an east coast lumberman and conservationist. Over the years, additional purchases have expanded the University's holdings to 4,300 acres nestled just a short drive from Mt. Rainier.

Recognizing that sustainability is the future of forestry, the UW's School of Environmental and Forest Sciences (SEFS; previously called the College of Forest Resources) created the Center for Sustainable Forestry in 2003 to "discover, teach, and demonstrate the concepts of sustainable forestry."

Research

We are "focused in a different way than industry" when it comes to managing our forestland, says Dr. Greg Ettl, director of the Center for Sustainable Forestry for the past three years. Pack Forest's "primary purpose is to support research projects and sustainable forestry."

Its 4,300 acres of forestland are divided into 200 stands, each with its own management goals that achieve this purpose. Some of the stands are ecological reserves of old-growth western red cedar or are sites of silviculture experiments. These experiments may be a student's graduate project or a joint project between the UW and a state agency. A few of the ongoing research studies include Douglas fir spacing trials and western red cedar silviculture with varying overstory retention to "mimic native disturbance regimes." These stands total 500 acres that are excluded from harvest while the remaining 3,800 acres are actively managed for timber harvest.

Harvesting

Though the Pack Forest management plan has 40 acres to be harvested each year, that may vary depending upon the volume of the stand, and there have been times when harvesting doesn't occur, such as during the economic downturn.

Ettl says when a harvest is planned, it is open to public bids because the forest is a state agency. Harvested timber includes Douglas fir and western hemlock with a 8"-35" dbh, red alder with 8"-15" dbh, and various sizes of western red cedar. Ettl says, "We will try to leave [the] large cedar," a species that he would like to see more prevalent across the landscape.

Challenges for Loggers and the UW

One way that Pack Forest differs from industry in its harvesting operations is the use of the selection systems that keep



more leave trees on the land, which Ettl admits “aren’t as conventional and provides a challenge for the logger.” The reason? He says, “We try to have a sustainable forestry element to [demonstrate] to students and visitors.”

With Pack Forest having steep slopes and sensitive soils that can only be logged during summer months, operations are planned accordingly.

One challenge that Ettl faces is meeting current operating expenses of the Center while leaving timber that will provide revenue during the next 10-15 years. A number of Pack Forest’s stands, which were established after the 1926 fire, reached maturation during the 1970s and were cut. Revenue now depends upon the few remaining stands that are 30 to 55 years old.

On-the-Ground Forestry

Pack Forest’s innovation in sustainable forestry with the opportunity to practice on-the-ground forestry is why Dave Cass accepted the position of Forest Ecologist at Pack Forest. He joined the staff in mid-July 2012 and among his responsibilities is overseeing harvest operations. He has already overseen two harvests, a clearcut, and a thinning and has had positive experience working with the local contractor.

“I like the variety of responsibilities, working outside, and learning a new place,” Cass says. On any given day, he might give elementary students a tour, collect research data, or maintain research installations. One of Cass’ future goals is to conduct his own research study on the marketing and economics of non-timber forest products (such as salal) and how forest health is impacted by its harvest.

Education

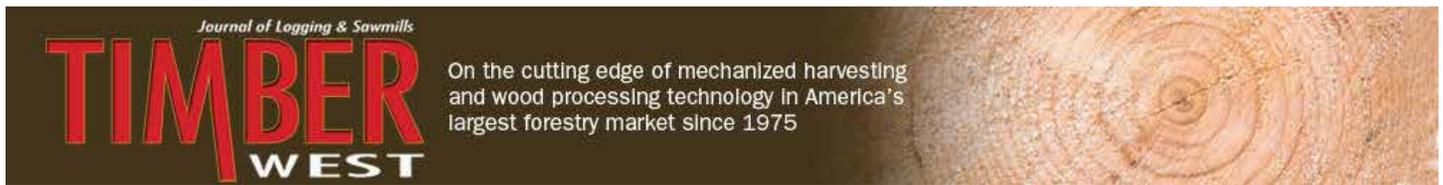
Besides being used for research, Pack Forest also provides a hands-on classroom for the University’s forestry and environmental majors. If you happen to visit Pack Forest on an autumn weekend, you might be surprised to see students cruising a stand. As part of SEFS’s Advanced Silviculture class, students are assigned roughly a five-acre stand to cruise and select the trees to be thinned. This provides the real-world scenarios these students will face as future forest managers, such as mitigating root rot spread in the stand, preparing the stand for a final harvest in 20 years, and generating revenue from logging operations.

In situations when logging involves student projects, the trees may be felled by Pack Forest staff and skidded by students. The logs are then taken to a mill by a contracted self-loader.

Ettl has used both a small cat — JD 450 dozer — as well as a Jonsered Iron Horse. Though it may not be able to handle the volume or operate as fast as larger equipment, Ettl says he likes using the Iron Horse because it can go over sensitive soils and has a light touch. “The damage to the land is equivalent to walking on it.”

Recreation

Like other industrial forest landowners, Pack Forest is open to the public for recreation uses such as hiking, hunting, or horseback riding, with visitors estimated in the thousands. Though most users respect the signs and are responsible, there are occurrences of illegal trash dumping, shooting, and camping. This summer saw the burning of more than two acres



from a campfire left behind by illegal campers. Ettl is thankful that the Department of Natural Resources extinguished the fire before the damage proved greater.

Thousands of K-12 and university students visit the Pack Forest to experience a hands-on classroom. Building upon this educational component is the new Mount Rainier Institute, a collaborative effort between the National Park Service and the Center for Sustainable Forestry to develop an overnight environmental education program.

Mount Rainier Institute will use the cultural and natural resources of the national park and Pack forest to “provide nature-based education experiences that are rooted in science and nurture the next generation of environmental stewards and leaders.” Though the idea for such a program originated many years ago, the recent partnership between Mount Rainier National Park and the University of Washington will now help the idea come to fruition.

John Hayes, formerly the executive director of the Dunes Learning Center at the Indiana Dunes National Lakeshore, was busy in 2012 developing curricula, seeking new partnerships and collaborations, and exploring the logistics of hosting a program at Pack Forest and Mt. Rainier National Park. Though most students have a visual connection with Mt. Rainer, Hayes says, “There’s a significant number that have never been there.” The purpose of this program is to bolster an “authentic experience.” Hayes envisions the first schools participating in the pilot program in Fall 2013 with a formal opening in September 2014.

Opening Minds

When asked why he accepted the director position at the Center for Sustainable Forest, Ettl said it was the challenge of “managing a bigger forest and expanding the research program.” He emphasized that working with students also happens to be “...the best part of my job.”

By teaching forestry students to become future forest managers or scientists, Ettl is committed to continuing the mission of Pack Forest as Charles Pack intended.