

# CANOPY VIEW NEWS

Mid-summer Special edition  
2020, ISSUE #8



## A Message From Your Extension Foresters

Summer is almost here and hopefully you are all gearing up to get to work in your forest! We know it seems early for another issue of our newsletter, but we thought you might be interested in a mid-summer special edition to make up for the decline in in-person classes as a result of COVID-19. New directives are starting to come in from administration, but for now it looks like our classrooms will continue to remain virtual.

In the mean-time we've got articles for you to enhance your habitat for songbirds, try out carbon friendly burning with biochar, get recreating on trails you've built yourselves, and you'll meet the tree, Pacific Yew.

We are looking forward to the day we can walk and talk with you on your properties again, but until then don't hesitate to reach out to us – we are still available via phone and email.

Wishing you good health and fun forest walks,

*Lauren @ Alicia*

*Lane @ Douglas County Extension Forestry Agents*

## In this issue:

### **PAGE 2**

Upcoming Events

### **PAGE 3**

Building a Nature Trail

### **PAGE 4**

Landscape Management Planning Tool!

### **PAGE 5**

Enhancing Songbird Habitat

### **PAGE 7**

Smoke into Biochar

### **PAGE 8**

Meet your Trees!

### **PAGE 9**

Extension Contact information

# Upcoming Events

**June 10 – July 15 Maintaining a healthy Forest In an uncertain Climate – Webinar Series.** Discover approaches to strengthen your forest's resilience to wildfire, bugs, & drought. Knowing the risks and taking action to mitigate these impacts on your forestland can save you money in the long run, while improving the health of your forest. [FREE REGISTRATION](#). You've missed the first class, but a recording is available on the [class website](#). Registration is still open for the remaining classes.

**Tuesdays through July 28<sup>th</sup>. Tree School Online.** For more information on all the classes visit: <https://knowyourforest.org/TreeSchoolOnline>. Some upcoming webinars below.

- June 16 Tree School Online: Spacing and Thinning of Young Stands.** Brad Withrow-Robinson, Oregon State University. Overcrowding stresses trees and may limit your options for developing forest diversity or other options. This class addresses young stands age 15 or younger and will help you assess the need for thinning, the right number of trees for your situation, and ways to accomplish a young stand thinning when needed. [FREE Registration](#)
- June 16 Tree School Online: Small Engine Care & Maintenance.** Rob Clark, Clark's Lawn and Garden. This is a basic level class covering the common causes of small engine problems and what you can do to avoid them, needed maintenance you can do, and practices you can use to extend the working life of your equipment. [FREE Registration](#)
- June 23 Tree School Online: Free Online Forestry Planning.** David Diaz and Sara Loreno, Ecotrust. This class will offer an introduction to Forest Planner, a free web application to help with stewardship planning in Oregon and Washington. [FREE Registration](#)
- June 23 Tree School Online: Insects in the Trees: Pest or Non-Pest?** Christine Buhl, Oregon Department of Forestry. This class will focus on the identification, biology, and management of pest and non-pest insects found on trees in Oregon. [FREE Registration](#)
- June 30 Tree School Online: Managing Root and Butt Rot of Conifers.** Sarah Navarro, Oregon Department of Forestry. Root and butt diseases of conifers in western Oregon are caused by fungi that decay live roots and can enter the heartwood the tree. They can have a profound influence on conifer plantation management. Proper identification of root disease is vital to determine the best management approach. [FREE Registration](#)
- June 30 Tree School Online: See the Forest for the Bees.** Christine Buhl, Oregon Department of Forestry. Oregon is home to over 500 species of bees. Often overlooked are those present in Oregon forests. Who and where are they? What can we do to protect them? In this class we'll talk about how Oregon is tackling enhancing pollinator health and habitat, and what you can do on your forestland. [FREE Registration](#).
- Sep. 19 TREE FARMER OF THE YEAR TOUR.** Hosted by the Douglas County Small Woodlands Association. Coffee and donuts at 8am, tour runs from 9am – 12pm, and free lunch from 12pm – 1pm. Join your fellow woodland owners for a tour of the 2020 Douglas County Tree Farmer of the Year! This is a great event to meet and mingle with other woodland owners and see different approaches to small woodland management. Tour and lunch are FREE, however RSVP is required. Call Tami Jo at (541) 459-1402.
- Oct. 8 TWILIGHT WALK IN THE WOODS.** Joint OSU Extension & Douglas Small Woodlands Association event. 5pm – 7:30pm. Roseburg. Spend an evening with other small woodland owners touring the small woodland of Phil and Laura Benedetti! Topics include forest management, brush reduction, thinning, challenges, and future goals. This is a great opportunity to meet other woodland owners and bring home new ideas on how to care for your small woodland property. Call the OSU Extension office to register – (541) 672-4461.

# Top 5 Things to Consider when Building a Nature Trail on your Property

By Alicia Christiansen, OSU Extension Forestry & Natural Resources Extension Agent, Douglas County

Nature trails are a popular feature across the Oregon landscape. People of all walks of life escape to them for solitude, wildlife viewing, exercise, and to spend time with friends and family. As a landowner, you have the opportunity to create a trail (or many!) in your very own backyard. But where do you start?

Landowners of all acreages can successfully construct a nature trail on their property, as many design and maintenance features are the same regardless of property size. With careful planning and construction, nature trails can have a minimum impact on the surrounding environment, protecting important features such as wildlife, plants, soil, and waterways. A well-designed trail can even aid in other land management needs, such as access to remote property corners and fire breaks. They are also a great opportunity to teach children, friends, and adults alike about wildlife, forestry, and natural resources.



Master Naturalists walk on a trail to view wildlife. Stephen Ward © 2018 Oregon State University

Here are some things to consider when planning for a nature trail on your property.

**Who is going to use the trail?** Is your trail meant for hiking, biking, strollers, wheelchairs, horses, ATV's, or some combination of these? Design the trail with the trail user in mind and the desired difficulty level. A trail designed for wheelchairs will be different than one for mountain bikers.

**Keep water off the trail:** in order to minimize disturbance caused by the trail, you must plan with water in mind. An ideal trail is built on the side of a ridge, slightly slanted outward, and kept clear of rocks, branches, or other debris for several yards on both sides of the trail. Follow the contour to keep water from running down the middle of the trail.

**Keep wildlife and plant impacts in mind:** Wildlife and plants add interest to a trail hike, but it is important to minimize your disturbance on their habitat. Avoid cutting trails through undisturbed areas, rather align them along natural or human-created edges. Keep trails away from known habitat areas for sensitive species. Keep trails as narrow as possible for your intended use.

### **Top 5 Things to Consider when Building a Nature Trail on your Property (continued from page 3)**

**Know your soils:** Soil type and texture have major influence on soil drainage and durability. The best soil type for a trail is a mixture of sand, silt, and clay. Knowing your soil types along the planned trail path will help you develop a solid, stable tread (the actual surface of the trail). Design trails to follow the contour, use rolling grades and other measures to route runoff away from the trail, avoid steep slopes, and build a boardwalk across wet soils. To learn more about the soils properties on your land, visit the USGS Web Soil Survey website at <http://websoilsurvey.nrcs.usda.gov/>.

**Consider the visual appeal:** Regardless of your reason(s) for enjoying a nature trail, users appreciate the visuals that accompany thoughtful trail placement. Some of these visual features you may consider highlighting when planning your trail include: waterways, park-like landscapes, open savannas, interesting or large trees, and spaces defined by edges (such as a pasture bordered by woods). To ensure minimal impact to waterways, wildlife habitat, and other valuable ecological functions, design trails to be both visually pleasing and supportive of minimal ecological disturbances.



Norma Kline, OSU Extension visits Coquille tree farmer. Lynn Ketchum © 2018 Oregon State University

**Coming soon:**

## **Landscape Management Planning Tool!**

The Oregon Tree Farm System and Oregon Small Woodlands Association in partnership with Ecotrust are developing an online mapping tool called Land Mapper that will assist landowners in preparing maps of their forest property while gaining basic information about their forest. Landowners will be able to enter their county parcel number into Land Mapper and automatically have a series of maps created with information about their property. This will be a great tool for members wishing to learn more about their property, prepare a forest management plan, or improve their current forest management plan. Funding for this project was provided by American Forest Foundation.

# Enhance Songbird Habitat on your Forest

Lauren Grand, OSU Forestry & Natural Resources Extension, Lane County

Don't you just love looking out into your forest and catching a songbird flit about the shrubs catching insects and sharing his sweet song? Songbirds are just one of the many benefits of having your own forest. Some of you might even be expert birders just from having a pair of binoculars near your living room window. But, how do you keep those birds coming back year after year? We'll give you some tips on how to maintain the key habitat characteristics for the many songbirds that may be visiting your property and even some recommendations on ways to increase the types of birds that visit.

Broadleaf trees provide essential habitat for many songbird species. Leaving just 10 percent of a stand of timber with hardwoods will greatly increase the number and variety of bird species present. You can choose to spread out the hardwood trees evenly across every acre, or you can leave them in islands or clumps to provide habitat for songbirds while minimizing impact on growing conifers. The best hardwood trees to leave to maximize the benefit to wildlife species include: bigleaf maple, dogwood, madrone, Oregon white oak, willows, cherry and Pacific crabapple. In central and eastern Oregon, leave quaking aspen, black cottonwood and willows.

Deciduous shrubs provide a source of food, cover, and nesting space for songbirds. Designating clumps of shrubs pre-harvest is a good way to maintain shrubs on the landscape while decreasing competition with your planted trees (i.e., shrubs are concentrated in one area). If you have mature forest, create gaps in the canopy of ¼ -1 acre in size to allow enough sunlight for your shrubs to develop and create seeds and berries. You can also plant them as a hedgerow along a forest or road edge. Deciduous shrubs that are especially beneficial to songbirds include:

cascara, ocean spray, Indian plum, red-osier dogwood, snowberry, hazel, elderberry, red flowering currant, serviceberry, thimbleberry and salmonberry. In central and eastern Oregon, also consider leaving bitterbrush, manzanita, bunchgrasses and Woods' rose.



Wilson's warbler nests in shrubs and thickets in W. Oregon.  
Photo: Jim Rivers © Oregon State University

Did you know that the majority of our terrestrial wildlife species use dead standing and down wood as either a primary or secondary component of their habitat requirements in the Pacific Northwest? Snags, or standing dead trees, are used for perching, as a source of food, and as nesting habitat. When snags or live trees fall over they become dead and down woody material. Down wood in the form of root wads, bark, limbs, and logs play a critical function in the forest ecosystem. This material is important in nutrient cycling, natural regeneration, and habitat for many wildlife species including arthropods (a main food source for songbirds). Down wood is used for feeding sites, nest cavities within and under the wood, food sources, and hiding and thermal cover. Consider these strategies for creating and maintaining dead wood in your forest.

*Continued on page 6....*

## Enhance Songbird Habitat on your Forest (continued from page 5)

- Retain existing snags where safe to do so.
- Lave “extra” wildlife trees for future snag recruitment (the big wonky looking trees that are of low economic value).
- Create snags by girdling or toping in areas they are lacking.
- Keep large-diameter down logs distributed throughout mature stands and harvest units instead of piling them into slash piles or moving them to landings.
- Contribute some large-diameter logs, and avoid mechanical damage and disturbance to existing down logs during commercial thinning operations. This will increase the amount of down wood as the stand ages.
- Look for opportunities to use un-merchantable portions of large-diameter logs as down wood.

Encourage a diversity of age classes of your live conifer trees. Live, standing conifers provide food, cover, and nesting structure for songbirds. If you are planning a clearcut harvest over 25 acres, a minimum of two standing live trees or snags acre of harvest must be left behind, but retaining trees above the minimum provides even more habitat options. These legacy trees encourage age diversity, and will eventually become snags or down wood. Legacy trees can be scattered throughout a harvest unit /or left in clumps (> 15 trees). When selecting trees, opt for trees retained from prior entries and deformed trees.

Riparian Buffers are important places to encourage songbird habitat. These are great places to house the variety of shrubs, hardwoods, and conifer trees that songbirds use for resources. Not to mention, it’s not far from the water to stop off for a drink or to find something to eat. If possible maintain or even increase your stream buffers to encourage riparian habitats.

Some songbird species rely on grasses and non-woody flowering plants. Finding a weed-free, bird friendly seed mix can be a great resources to maximize habitat. You can seed this mix in landings, cutbanks, edges, dirt roads, and if appropriate areas of a new harvest that won’t compete with your newly planted trees.



Black-headed grosbeak. Oregon Forest Resources Institute.



Ruby-crowned kinglet. Oregon Forest Resources Institute.

Early seral, or young regenerating forests, are in decline across the Pacific Northwest. Estimates suggest as much as a 50 percent decline in early seral forests since the 19th and early 20th centuries (Swanson et al. 2014). Currently, early seral forests exist primarily on private lands, due to the emphasis on late-successional and old-growth management goals on federal forestlands. As small private forest owners you have an opportunity to help create and maintain good habitat for early seral associated songbirds by prolong the period of time a forest is in this early seral stage. This may conflict with wood production goals, but for some landowners delaying crown closure is an option. You can delay crown closer by completing an early pre-commercial thinning or planting at a wider spacing. Just be sure to meet the minimum stocking requirements of the Oregon Forest Practices Rules after harvest.

Taking advantage of any of these steps will surely increase the music on your land. Enjoy the birds!

# Smoke Into Biochar for Forestland Owners

By Kelpie Wilson, Wilson Biochar Associates



All combustion air is drawn from above, which helps hold the heat in for faster biochar conversion. The flame stays in a “cap” on top of the kiln. Credit: Kelpie Wilson

Property owners in Oregon are fortunate to have trees – lots of them! Unfortunately those lovely trees also come with some management requirements. With our dry summers, fire is always a risk, and whether your property is a wooded backyard or a 100-acre forest, we have work to do to remove dead trees and limbs and thin crowded stands.

But cutting is only half the battle, because we also need to dispose of the material. Burning is the cheapest option, but also the dirtiest. Everyone hates to see our valleys filled with smoke on a beautiful fall day, but it’s been the price we pay for removing dangerous fuels.

Now we have another option: biochar. Biochar is just charcoal that is clean and safe to use as a soil amendment. Charcoal is just the carbon that remains in a piece of wood after you heat it up and drive off the hydrogen and oxygen in the lignin and cellulose. The remaining carbon atoms link up into hexagonal rings, otherwise known as aromatic carbon molecules. While not quite as stable as a diamond, this aromatic carbon is very hard to break down. While in the soil, it performs many important functions by grabbing onto nutrients and water and holding them in the root zone. Biochar in soil ends up promoting the formation of soil humus with all of its benefits. It is also a form of carbon sequestration, protecting our climate from excess carbon dioxide in the atmosphere. It’s a one-way trip for carbon that is pulled out of the atmosphere by a growing tree or shrub and ends up the soil as biochar. Conventional burn piles leave behind ash and smoke while releasing more carbon into the atmosphere.

In the soil, biochar continues to sequester carbon as it attracts and holds nutrients, water and microbial life. Plant roots seek out biochar particles in soil to feed on the abundant nutrients held in biochar pores, growing bigger, better crops, grass, trees or vegetables. Soil carbon continues to build, as plants remove even more carbon from the atmosphere.

Working with a group of volunteers called the Umpqua Biochar Education Team, I helped to develop several kinds of Flame Cap Kilns for making biochar from slash piles. The Flame Cap Kiln works like this: you make a fire in a container that is closed on the bottom. All the air for combustion comes from the top, and the flame forms a cap that burns up the smoke. When the first pile of wood burns down to the glowing coal stage, you add another layer. Slowly add more layers until the container is full of char and then put it out with water. It works because each new layer of burning wood cuts off all the air to the char layers below. There is no air coming from the bottom to burn up the char to ash.

Over the past five years, we have worked with many farmers, ranchers, watershed councils, Soil & Water Conservation Districts and forestland owners, teaching the Flame Cap techniques. Sometimes we leave the biochar in the woods to benefit forest soils and sometimes it is used in gardens and fields, or in barns for odor control and manure composting.

*Continued on page 8...*

## Smoke Into Biochar (Continued from page 7)

One of my favorite projects is one we just did in my home town of Takilma, near Cave Junction. We called it Social Distance Biochar. We had the resources: biochar kilns and bored teenagers; and the time: everyone was confined to home and to our existing small social groups by the pandemic. We figured we could practice safe social distancing and take care of burn piles that our older neighbors would have trouble handling by themselves.

From April 11 till the end of our open burning season on April 30, we employed 13 teenagers on eight days at six different properties. We paid the teen workers a total of \$1000 and produced 12.5 cubic yards of biochar. That works out to a cost of \$80 per cubic yard of biochar. We got a lot of yard work done as we moved and cleared piles and also did some more cutting and removal of dead brush. And homeowners got biochar for their gardens.

We are talking with various partners now about pursuing this as a business model that could help provide healthy, outdoor employment for youth while helping our elders and improving the environment.

We have had a lot of fun making biochar and turning trash to treasure. Hopefully this is just the beginning as more and more landowners learn about the benefits of biochar.

**About Kelpie Wilson:** Kelpie Wilson is an engineer with 30 years of experience in renewable energy, sustainable forestry and resource conservation. She has presented numerous workshops on making and using biochar and she offers biochar ebooks and free biochar guidelines along with many other resources on her website at [WilsonBiochar.com](http://WilsonBiochar.com). To contact Kelpie: [kelpiew@gmail.com](mailto:kelpiew@gmail.com); Office: 541-592-3083



To finish up, we quench with water and load the char into bags. Credit Kelpie Wilson

## Meet Your Trees!

*In this new section, we will feature a native Oregon tree! Have a favorite to request? Let us know!*

### Pacific Yew (*Taxus brevifolia*)

**CHARACTER:** Trees grow very slowly and are very long lived. Even a small tree may be several hundred years old (or more).

**IDENTIFICATION:** Needles are 1" long; dark green above and lighter green below (not white); pointed, but not sharp; leaf margins rolled under; needles occur in a single plane. The fruit is a small red "berry" with a single large seed called an aril. SEED INSIDE RED "BERRY" IS POISONOUS! The bark is thin, purple, and scaly.

**DISTRIBUTION:** Native to the Pacific coastal region from southeastern Alaska southward into California. Occur from 2100-8000 ft. (650-2500 m) elevation.

**USES:** All yews contain a natural chemical called taxol, which is very promising in the treatment of certain types of cancer.



Photos: OSU Common Trees of the Pacific Northwest website.  
[http://oregonstate.edu/trees/conifer\\_genera/yew.html](http://oregonstate.edu/trees/conifer_genera/yew.html)



# Canopy View News

## A Forestry & Natural Resources Newsletter for Woodland Enthusiasts of Douglas & Lane Counties

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