OREGON WHITE OAK

Margaret Miller, CF
Oregon Forest Resources Institute

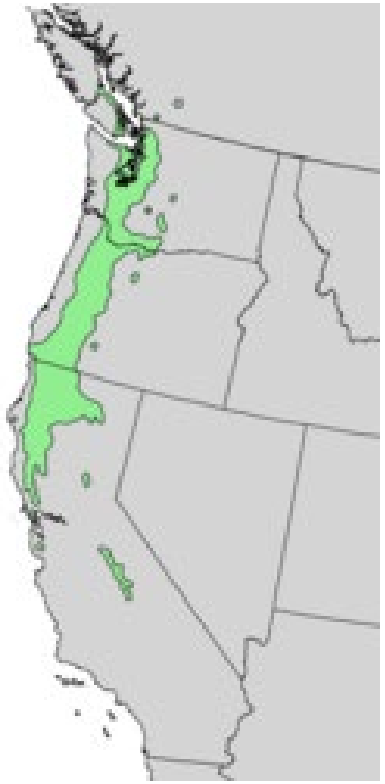


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Oregon White Oak
Quercus garryana

- One of Oregon's iconic native hardwood trees
- Long-lived, often several hundred years
- Large tree or shrubby form
- Adapted to a wide range of sites
- An important part of Oregon's natural and cultural heritage







OAK ECOSYSTEMS OF OREGON

DID YOU KNOW OREGON'S OAK HABITATS COME IN DIFFERENT FORMS?

When people imagine Oregon's forests, they picture towering conifers. But before European settlement, much of the Willamette Valley was a patchwork of open prairies, scattered oak savannas and oak woodlands. These habitats formed some of Oregon's most diverse ecosystems.



OAK-ASSOCIATED PRAIRIE

(less than 5% canopy cover)

Oak-associated prairies are dominated by native grasses and wildflowers, with few or no oak trees. These open landscapes provide important habitat for pollinators, ground-nesting birds and many native plant species.



OAK SAVANNA

(5% to 25% canopy cover)

Oak savannas are characterized by widely spaced Oregon white oaks that create an open, sunlit understory supporting a diversity of plants and wildlife. Historically, frequent low-intensity fires helped maintain these open landscapes.



OAK WOODLAND

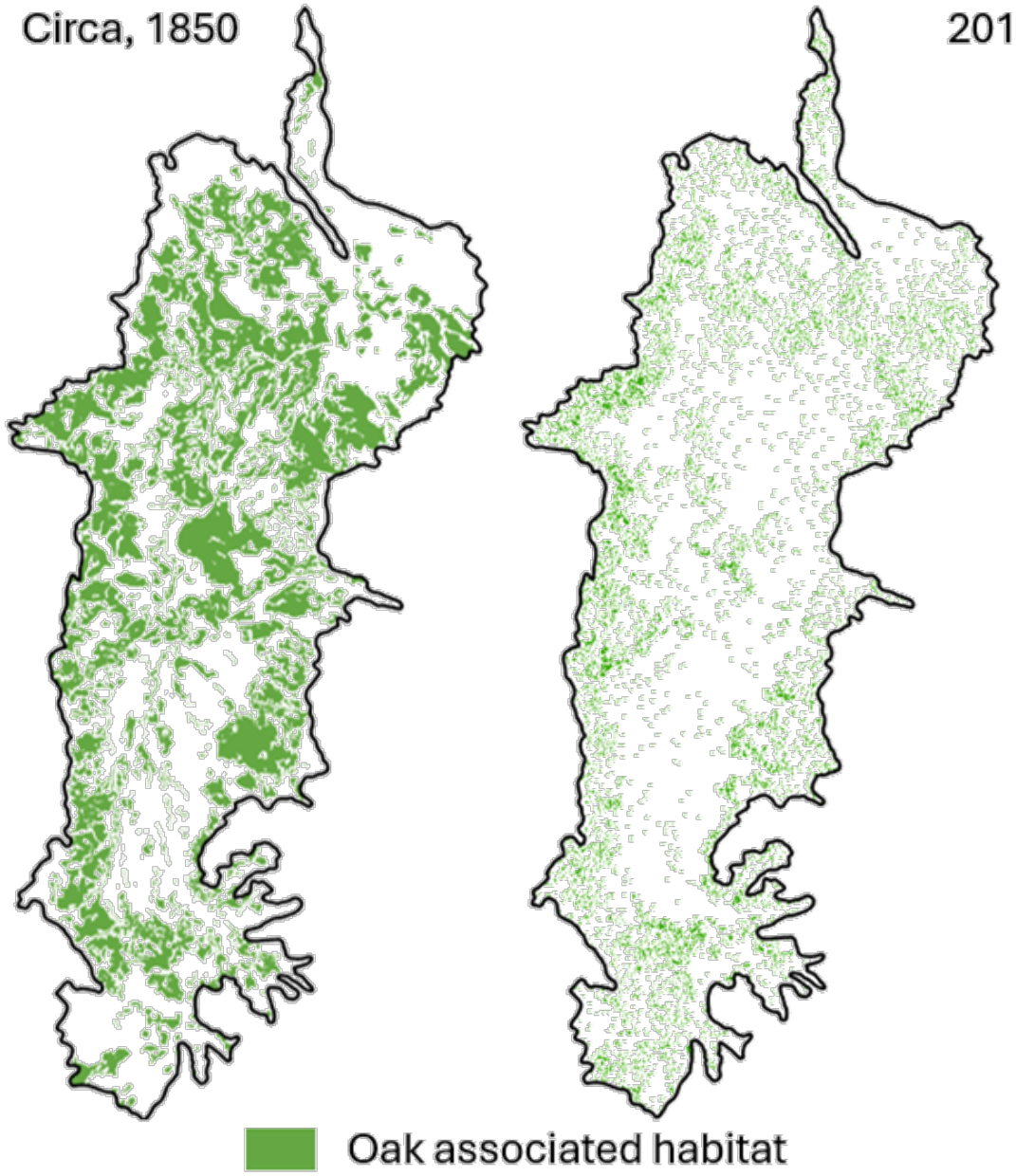
(26% to 80% canopy cover)

Oak woodlands contain a greater density of trees, creating a partial canopy while still allowing some sunlight to reach the forest floor. These habitats support countless species, from acorn woodpeckers and western gray squirrels to native pollinators and songbirds.

A LANDSCAPE SHAPED BY FIRE

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A Landscape Shaped by Fire and People



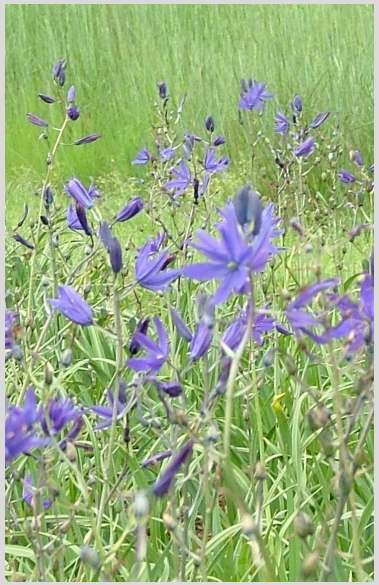


What Oral History Tells Us

What does fire do?

- Increase acorn production
- Increase plant diversity
- Maintain open prairies
- Prevent conifer encroachment





Larry Eifert









History of Oak Grove

- Important feature of Oregon Garden including the 400-year-old “Signature Oak”
- Ongoing management and conservation efforts including a prescribed burn
- Majority of oaks are roughly 150-200 years old



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THE SIGNATURE OAK

c. 1575 — SIGNATURE OAK GERMINATES

1840s — OREGON TRAIL ERA

1854 — TOWN OF SILVERTON ESTABLISHED

1859 — OREGON BECOMES 33RD STATE

1911 — OREGON DEPARTMENT OF FORESTRY ESTABLISHED







A LIVING WITNESS

1929 — OREGON REFORESTATION LAW ESTABLISHED

1971 — OREGON FOREST PRACTICES ACT ENACTED

2001 — THE OREGON GAREST OPENS

2002 — SIGNATURE OAK DESIGNATED AN OREGON HERITAGE TREE

2012 — PRESCRIBED BURN NEAR SIGNATURE OAK

TODAY



Our oak grove management goals

Maintain diverse oak habitats (woodland, savanna, prairie)

Enhance wildlife habitat with native species and structure

Demonstrate active restoration and management practices

Highlight Indigenous stewardship and cultural significance

Provide education and recreation opportunities







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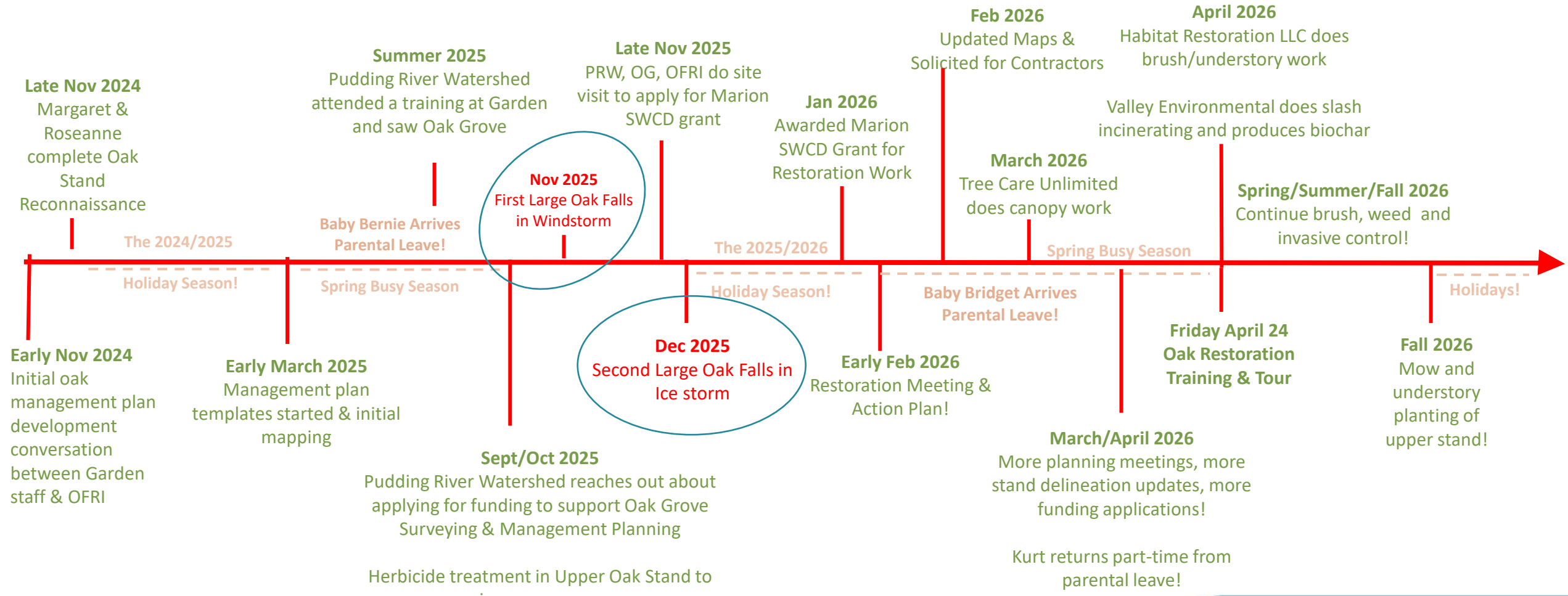






Detailed timeline of the current Oak Restoration Project

Our motto: be adaptable because life happens!



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Oak Restoration Activities

Invasive Species Control
Treat and reduce blackberry, scotch broom, and invasive ivy

Hazard Tree Work
Remove unsafe trees along trails, crown reduction pruning in upper oak stand

Brush Management & Mowing
Improved access, controlled invasives, and helped maintain open conditions

Habitat Pile and Snag Creation
Created wildlife habitat using tops and woody material and retain snags where appropriate





Invasives, invasives and more invasives

















Promoting structure, snags and habitat

- Retain standing dead trees (snags) when safe
- Maintaining and creating woody habitat piles
- Promote structural diversity across the site



Woodland Fish & Wildlife • 2023

Woodland Fish & Wildlife

Habitat Piles
Tools for Family Forestland Owners

Authors: Jon Cox[1], Ken Bevis[2], Fran Cafferata[1], and Susan Barnes[1]

Introduction

Food, water, cover and space are the four essential requirements for wildlife survival. More often than not, wild animals are living on a razor's edge. If one of these crucial life needs isn't met, even for a short time, it can mean death for the individual and even total loss of the local population. This may sound dramatic, but it's true.

In woodland habitat, cover (or shelter) is present in many forms. Woody material on the ground is a special and valuable form of cover. It is essential to a wide range of species, especially invertebrates, small mammals, birds, amphibians and reptiles, and is easily provided or retained via forest management. Dead and dying wood, particularly of larger sizes, is a vital ecosystem resource, both

replenish them over time, it can result in a shortage of suitable habitat for some wildlife species. This is why retaining or creating woody structure is a priority recommendation for landowners, and is sometimes required by forest practice law (OFRI 2020).

Fortunately for both wildlife and landowners, assembling woody material into a long-lasting Habitat Pile is a simple yet effective management tool to supplement natural habitat and promote healthy wildlife communities. The use of constructed piles isn't a particularly new practice, but it is becoming more widely recommended, and is increasingly supported by scientific research that shows it having real conservation value (Sullivan et al. 2012, Sullivan and Sullivan 2019).

Woody material on the forest floor provides valuable habitat for many organisms

Oak specific resources



- *Oak Habitat Types*
- *Preserving Prairies and Savannas in a Sea of Forest*
- *Biology and Management of Oregon White Oak*
- *Management Planning Tool Kit for Oak Habitats*
- *Oregon's Conservation Strategy for Oak Woodlands*
- *In the Woods podcast episode on Oregon white oak*
- *Oregon White Oak, Quercus garryana*
- *Oregon White Oak and Wildlife: Tools for Family Forestland Owners*

Available at KnowYourForest.org

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SAVE THE DATE!

Saturday, March 13, 2027

Oregon Forest Resources Institutes
Rediscovery Forest - Harvest Demonstration
Saturday, March 13, 2027

Event Highlights:

- Live logging demonstration
- Portable sawmill demonstration
- Air curtain incinerator demonstration
- Partnership for Forestry Education (PFE) partner exhibits
- Learn from the field!

Visit the Oak Grove

Walking Tour

Approximately
0.5 mile

About 15–20 minutes

