

Prepared by Lynda Boyer
Heritage Seedlings, Inc.
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An **ecoregion** is "a relatively large area of land or water that contains a geographically distinct assemblage of natural communities." [World Wildlife Fund]

Willamette Valley Ecoregion

The Habitat Descriptions below are based upon descriptions developed by The Nature Conservancy

Rolling prairies, deciduous/coniferous forests, and extensive wetlands characterized the pre-19th century landscape of this broad, lowland valley. The Willamette Valley is distinguished from the adjacent Coast Range and Cascades by lower precipitation, less relief, and a different mosaic of vegetation. Landforms consist of terraces and floodplains, interlaced and surrounded by rolling hills. Productive soils and a temperate climate make it one of the most important agricultural areas in Oregon.

Habitat Descriptions for the Willamette Valley

Herbaceous Balds and Bluffs

Herbaceous balds and bluffs occur in the driest environmental settings within the ecoregion that support continuous vegetation: generally south- to west-facing slopes on shallow or sandy/gravelly soils. They typically occur as isolated sites within a forest matrix or on coastal bluffs. Fire was probably an important process historically on most of these sites, and some of them are threatened by invasion of trees in the absence of disturbance. Vegetation is dominated by perennial bunchgrasses, forbs, and mosses. Scattered trees, especially *Quercus garyana* (Oregon white oak) and *Arbutus menzeisii* (madrone) with *Pseudotsuga menziesii* (douglas fir), on the fringes, are often present.

Oregon White Oak Woodlands

This system is associated with dry sites and/or frequent pre-settlement fires. In the Willamette Valley, soils are mesic (sites characterized by intermediate moisture conditions neither decidedly wet nor decidedly dry) yet well-drained. Even where more environmentally-limited, the system is strongly associated with a pre-European settlement low-severity fire regime. Succession in the absence of fire tends to favor increased shrub dominance in the understory, increased tree density, and increased importance of conifers, with the end result being conversion to a conifer forest. The vegetation is a woodland or forest dominated by deciduous broadleaf trees, mostly *Quercus garyana*. Co-dominance by the evergreen conifer *Pseudotsuga menziesii* is common.

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Upland Prairies and Savannas

This ecosystem formed a complex mosaic of varying patch sizes with prairies and riparian forests over much of the Willamette Valley during the pre-European settlement era. It occurs on well-drained soils and was maintained, historically, by the Native America practice of setting frequent low-intensity fires. In the absence of disturbance, many of them have succeeded to forest and others continue to do so. The dominant vegetation of these native grasslands were perennial bunchgrasses such as *Festuca roemerii* (Roemer's fescue) and *Danthonia californica* (California oatgrass), with abundant and diverse forbs (in a prairie or meadow, forbs are the flowering plants that are not grasses and sedges). Scattered open-growth deciduous (*Quercus garryana*) and/or conifer (*Pseudotsuga menziesii*, *Pinus ponderosa*) trees within the grassland characterize a savanna. Uncommon now, such savannas once covered about 1/3 of the total acreage of the Willamette Valley.

Vernal Pools

Vernal pools are a component of wet prairies (see below) and characterized by freshwater inundation for much of the winter and spring, followed by dramatic lowering of the water table at the approach of summer, such that soils are dry in the summer. They are found in isolated small depressions with no inflow or outflow and a restrictive subsurface soil layer (clay or bedrock). Vegetation is dominated primarily by annual forbs.

Wet Prairies

Wet prairies, historically, covered large areas of the Willamette Valley where they were maintained by a combination of wetland soil hydrology and frequent burning. These are high nutrient wetlands that are temporarily to seasonally flooded. They have been reduced to tiny fragments of their former extent. They are dominated primarily by graminoids (grass and grass-like species), especially *Deschampsia cespitosa* (tufted hairgrass), *Danthonia californica*, and *Carex* spp [sedges]., and to a lesser degree by forbs and shrubs.