**Class discussion:** What is Oak Savanna?

A highly imperiled *ecosystem* found in the Willamette Valley is Oak Savanna. Oak trees are an important habitat because they supply both food and shelter. White Oaks are used by over 200 species of nesting birds. Currently we have a lot of oaks in the Willamette valley, but lack the native *understory* that would create a complete ecosystem. Historically, Oak Savanna was much more common than it is now. (History of Oak Habitats handout)

Acorns were harvested by Kalapuyas. They would soak or boil the acorns to remove bitter tasting tannins, and then grind them into flour. Acorns were one of the few food sources that could be stored long term. Historically, Kalapuyas would burn the understory of oak savanna to make acorns easier to collect and to kill plants that compete with oak trees, like Douglas fir trees.

**Class discussion:** Why is Oak Savanna declining?

*Fire suppression* over the past 200 years has let small Douglas fir trees grow tall and create shade, turning fields into forests.

Shade: Oak growth patterns are broad. Douglas fir growth patterns are straight and tall, blocking the sun and contributing to the shading out of oak trees and their native understory.

Grazing keeps native understory from growing and invasive grass is planted to feed livestock.

Invasive vegetation competes with native understory species.

**Questions:**

What animals use acorns as a food source?

What animals use Oak trees for shelter?

What might Oak Savanna have looked like before the Kalapuyas used fire?

How did fire change the landscape?

What does it look like now that fire is not used anymore?

**Worksheet and activity:** Make copies. Read to the class the History of Oak Habitats. Draw along activity Who Lives in the Oak Community and read the back side, A Bird’s Eye View. Hand out and read Oaks of the Willamette Valley, focusing on the differences between black and white oaks. If there is extra time, have students color their oak community drawings and add species to them.

**Vocab:**

*Ecosystem:* a biological community of interacting organisms and their physical environment.

*Understory* plants grow near the ground under trees and include grasses, forbs, and shrubs.

*Fire suppression* keeps fires from starting and burning and creates a buildup of fuel.