

**Columbines School of Botanical Studies**  
**Wild Food Tending**  
**Field Trips #11, 12, 13, 14**  
**September 15-18, 2016**  
**Middle Elevation Old Growth Woods and Meadow**  
**Southwestern Oregon Oak Woodland, Meadow, and Mixed Conifer Forest**

- History of the Klamath People; historic hoop and current berry use
- Historic summer berry gathering place for Southern Molalla, Cow Creek band of Umpqua Indians, Klamath, Modoc, Shasta, Takelma, possibly Paiute people
- Fireside chat: Rewilding community and projects, integrating class experience into life, leadership and community
- Tasted and compared acorn species raw: *Quercus garryana* (white oak), *Q. kelloggii* (black oak)

**Botany**

- Keyed *Vaccinium membranaceum*, big huckleberry
- Pinaceae vs. Cupressaceae
- Pinus genus characteristics
- Keyed *Pinus contorta*
- Oak diversity and identification—white and red acorn groups, comparisons of acorn morphology
- Identified local conifers *Pinus ponderosa* (Ponderosa pine), *Calocedrus decurrens* (incense cedar), *Pseudotsuga menziesii* (Douglas fir), and *Abies concolor* (white fir)

**Wildcrafting, Ecology and Tending**

- Harvested *Rorippa nasturtium-aquaticum* fresh leaves
- Tasted *Perideridia oregana* and *P. gairdneri* roots and seeds, both fully in dry seed stage, and compared root flavor and texture with other seasons
- *Vaccinium* ecology and locating
- Succession and forest encroachment of meadows and berry fields
- Identifying a Traditional Use Site using names, geography, current use patterns, and outside written sources
- Ethics in choosing stands away from Traditional Use Sites
- Map reading, locating stands from the map—using names, topography, elevation, road access, water influence
- Tending the berry fields: fire, planting back, maintaining forest structure
- Acorn collecting ideas—check well-cleared urban areas for most productive oaks, like lawns, parking lots, cemeteries, parks
- **Oak tending concepts:**
  - Most oaks are shade intolerant, meaning they need to grow in full sun. In the absence of surface fires, conifers encroach and compete for light, nutrients, and water

- Most conifers cannot survive the same amount of drought as oaks. If they are allowed to encroach upon and kill the oaks, the forest is susceptible to large scale drought mortality and extreme fire
- Historical forest stand reconstruction exercise—you can read the history of the forest by aging stumps, approximating distances, examining fire scars, assessing the structure of living older trees, then turning back your imagination to visualize the structure of the stand 150+ years ago
- Biochar actually fixes atmospheric carbon and acts as a fertilizer, moisture sponge, and “house” for beneficial microbes in the soil
- When you remove biomass, in the form of small conifers, return the nutrients to the site via ash and/or biochar
- Fall burning between the first drop of bad acorns and the second drop of good acorns decreases acorn weevil population and clears the ground for harvest
- Keep the ground open below the drip line of the oak—remove any conifers or large shrubs
- Focus on clearing away conifers to the south and southwest that cast shade on the oak canopy
- Gradient of drought tolerance in local conifer species from most tolerant to least: Ponderosa pine (and other pines), incense cedar, Douglas fir, white fir
- It is worth tending even just one oak tree

### **Tending activities**

- Removed encroaching conifers from a stand of large *Q. kelloggii* showing obvious shade die-off on lower limbs
- High-pruned nearby small conifers for fuel reduction and tree health
- Piled slash for a later burn pile
- Saved poles for use in building projects
- Saved small sapling rods for artesian walking sticks
- Made biochar in kiln
- Biochar soil supplementation around the drip line of an oak
- Collected *Perideridia oregana* and/or *P. gairdneri* seeds for planting outside of class

### **Wild Food Preparation**

- Processed dried *Lomatium grayi* into flour
- Made Paiute-style pinch cakes with 1/3 *Lomatium grayi* flour, 1/3 pine nut flour, 1/3 dried berries of *Vaccinium membranaceum*, *Rubus leucodermis*. Moisten and press into palm, then dry.
- Acorn processing—sorted, cracked, shelled, pounded, ground and sifted *Quercus garryana* and *Q. kelloggii* acorns, aged one or more years, using ancient manual mortar and pestle technique, and modern “towel method” and hand crank meat grinder techniques

- Leached acorn of two different grades (flour, grits) for two nights in stream; discussed alternate leaching methods
- Culminating Collaborative Feast, using stored **wild foods from every class in which we harvested (indicated in bold below)**, as well as any offerings from extra-curricular wild or domesticated food collecting or growing

Menu:

- “Hoop Soup” with fresh wild venison shoulder, dried ***Lomatium grayi*** pieces, dried *Vaccinium membranaceum* berries, dried ***Perideridia oregana*** flowers, dried ***Stachys cooleyae*** leaves, and homegrown chicken broth, basil, lemon verbena, oregano, onions, green beans, corn, cabbage, and carrots.
- Acorn mush/porridge of four types: fine ground white acorn, grits of white acorn, fine ground white acorn, and grits of black acorn (2:1 water to acorn for fine flour, less water with the coarser acorn grits. You can try more or less water to adjust texture to how you like it. Simmer low for 10-20 minutes, stir)
- A smorgasbord of toppings options for Acorn mush including
  - Savory items: dried tomato-pepper leather, ***Rorippa*** (watercress), smoked home-canned salmon, home-made bacon, ***L. cous*** seeds, kale chips, home grown herbs
  - Sweet items: Manzanita berry powder, dried figs, honey; butter (store bought)
- Acorn Bread:
  - 3 cups acorn flour (we used 2 c. fine white acorn, 1 c. black acorn grits), moist but squeezed out well from leaching
  - 2 tsp. baking powder
  - ½ tsp. baking soda
  - ½ tsp salt
  - 3 eggs
  - 1 ¾ c. milk (slightly less if using moist acorn)
  - 2 tsp. honey
  - 2-6 tsp. fat (we used butter)
  - Mix dry and wet ingredients separately, then mix wet into dry. Don't over-mix. Put in pre-heated greased Dutch oven and place on thin layer of coals, filling upside down lid with coals so most of the heat is from the top. Bake 15-20 minutes.
- ***Camassia quamash*** bulbs, pit baked and then dried, reconstituted by boiling in hot water
- Biscuitroot fish cakes, skillet fried: ***Lomatium grayi*** root flour, wild smoked salmon, dried ***L. cous*** seeds, eggs, butter
- Tea of *Fragaria virginiana* April leaves, with home grown lemon verbena and bee balm

