

Chapter Introduction: Botany of the Table Rocks

The Table Rocks are among the most popular hiking trails in our region and the botanical treasures they offer are one of the major reasons why. Ask any hiker on the trail between March and June, and they will likely tell you the spectacular and diverse wildflowers are one of the attractions that prompted their visit. The casual admirer of the beautiful wildflowers might not realize that the botany of the Table Rocks makes them one of the most biologically unique and important areas in our region. The diverse plants of the Table Rocks attract educators, students, BLM and Nature Conservancy botanists, as well as amateur plant enthusiasts from all walks of life.

The Table Rocks are botanically special for several reasons. They are a crossroads of several different ecoregions and consequently contain plants unique to those ecoregions. They represent the moister Umpqua and Willamette Valleys to the north, the warmer drier central California Valleys to the south, and the Great Basin to the east. Due to the convergence of ecoregions, the sheer number and diversity of plants that occur there are truly amazing (a noncomprehensive list compiled by Joan Severs, Darren Borgias of the Nature Conservancy, and the BLM include over 360 species).

The Table Rocks are home to many unusual plant species. These include several endemic species (species restricted to a narrow geographic distribution), such as the Southern Oregon buttercup (*Ranunculus austro-oregonus*). This flower is endemic to central Jackson County. It grows on both rocks but the Upper Table Rock Trails is one of the best places to find it. Likewise, the Henderson's fawn lily (*Erythronium hendersonii*), one of the most prominent and admired wildflowers on the Table Rocks, is endemic to southwestern Oregon. The dwarf woolly meadowfoam (*Limnanthes floccose* ssp. *pumila*) is an even narrower endemic, occurring only on the tops of the two Table Rocks and nowhere else in the world! Several plants at the Table Rocks are near the northern extent of their range, and are thus rare in Oregon, though they occur elsewhere further south. Teaching students about the beautiful wildflowers endemic to our region can be a great way to foster a sense of regional belonging and to encourage them to value nature.

Plant Communities

The Table Rocks provide a unique opportunity to see, in a relatively small area, several distinct plant communities or habitat types (and thus a terrific teaching tool for concepts of habitat and ecology). The following paragraphs describe each of the four plant communities present on the table Rocks. Keep in mind that nature is more complex than our descriptions of it; these "communities" often overlap and do not have definitive boundaries.

Oak Savannah

As you begin your hike on the Table Rocks, you will find open grassland dotted with shrubs, the occasional ponderosa pine, and stately white oaks. This is the oak savannah. It is appropriate the community is named after the oaks, as they provide homes and food for a variety of the wildlife in this habitat. Some of these oaks, though modest in size, may be 300-400 years old, placing them among the oldest trees in the Rogue Valley. This means that some of the oaks we see today were providing the Native Americans with acorns before Euro-American settlement began. They are a living link to our region's history. While the white oak serves as a keystone species (a

species that is the central supporting element of a healthy ecosystem), it is but one of many noteworthy plants in the oak savannah community. In the spring, a pageant of wildflowers comes into bloom, including common camas and biscuit root (important food sources for the Native American people), Henderson's fawn lily, brodiaea, buttercup, shooting star, cat's ear lily, prairie star, saxifrage, blue-eyed Mary, yarrow, clarkia, and lupine. The oak savannah is one of the most threatened habitat types in our region because it occupies the lowland valleys where most development occurs. It is also at risk because of the lack of fire. Frequent fire occurs naturally in this environment. Additionally, Native Americans helped to further shape this community by intentionally lighting fires as a land management tool. Frequent fire in this environment helps insure a healthy acorn crop (an important source of food for Native American people of this region), prevents Douglas-fir saplings from taking over, decreased insect infestations, and prevents the growth of thick underbrush that can result in an extreme fire situation. Today, land managers have a complex job of working to protect the oak savannah by incorporating fire in this environment while also protecting private property.

Chaparral

As the trails continue up towards the tops of the Table Rocks, the slope steepens and the ground becomes rockier. Fewer large trees are present, but a denser growth of shrubs, particularly buckbrush, Manzanita, and mountain mahogany occurs. This is the chaparral community. These shrubs are adapted to hot, dry conditions and harsh, rocky, clay soils, and they are especially well adapted to frequent fires. In fact, many of these shrubs thrive after a fire. Buckbrush and Manzanita produce large amounts of seed that sprout vigorously after a fire due to the added nutrients in the soil. The leaves of these plants contain flammable oils that actually help them burn. The chaparral community is a great place to see wildflowers such as Indian paintbrush, cat's ear lily, prairie star, yarrow, Oregon sunshine, grand collomia, filldeneck, clarkia, Henderson's star, and shooting star blooming beneath the shrubs.

Mixed Woodland

On the slopes below the andesite lava cap, the landscape makes another change into a different plant community: the mixed woodland. This community includes deeper, richer soil that supports denser stands of many different types of trees. In addition to white oak; black oak, madrone, Ponderosa pine, incense cedar, and Douglas-fir can be seen. Wildflowers are not as abundant in this shady environment, but there are a few standouts such as red bells, cat's ear lily, false solomon's seal, starflower, western columbine, hound's tongue, and arrowleaf balsamroot.

Mounded Prairie/Vernal Pools

Upon reaching the tops of the Table Rocks, the forth plant community, the mounded prairie/vernal pool is encountered. Here at the top of the Table Rocks, there is only a thin layer of soil overlying the lava rock. Grasses and wildflowers dominate this environment. Some of the wildflowers on display are brodiaea, clarkia, wild onion, California sandwort, goldfields, lace pod, popcorn flower, lupine, cow's udder, blue-eyed Mary, and rosy plectritis. The vernal pools are a unique and rare type of habitat. Pools form in the winter and early spring and then disappear in the dry months. As they dry out in early spring, rings of wildflowers bloom in the remaining water and around the edges. One of these flowers is the dwarf woolly meadowfoam, which only grows on the tops of both Table Rocks. Another of the vernal pool wildflowers,

downingia, forms such a dense carpet of violet flowers in the early summer; it creates the impression of water in the pools reflecting the blue sky overhead.

The above summary is intended to familiarize teachers with the plant communities their students will encounter on a Table Rocks hike. For most of the lessons in this chapter, a basic knowledge of plant and flower anatomy will also be helpful. The lists and diagrams on the following pages cover the most important organs in plants and flowers.

Information adapted from:

LeBlanc, Paul. Personal Interview. March 2007

Reyes, Chris, ed. The Table Rocks of Jackson County: Islands in the Sky. Ashland: Last Minute Press, 1994.

Severs, Joan and Darrin Bo0rgias. "Oregon Plants, Oregon Places: Upper and Lower Table Rocks, Jackson County." Kalmiopsis. 3 (1993).