Post 7: Hard vs. Soft Chaparral Community

You are in what is referred to as a hard chaparral community, characterized by tough woody trees and shrubs. Here you see manzanita and scrub oaks. Down the canyon is a soft chaparral community, which is typified by smaller and less densely spaced softer plants, including California sage and deer weed.

Post 8: More Chaparral Community Plants

Popcorn flower, wild cucumber, black mustard, and our state flower the California poppy grow here. Black mustard was introduced by Spanish missionaries, who sprinkled the seeds along the trail, marking the route between the missions with a yellow blanketed pathway.

The reddish-brown painted LADWP towers (left), were built in the 1930's. To keep them from corroding and having to rebuild them, the towers were hand-painted while energized with electricity. Gary Earney, Lands Officer from this ranger station suggested the reddish-brown color to blend into the chaparral. (Photo By Andrea Binder)

Post 9: Water

A water flume runs under this portion of the trail. Water is one of the important resources provided by the National Forests to the public, and watershed protection is one of the our principal duties. This flume picks up water from Lytle Creek above the ranger station and carries it to a small power generating station at the bottom of the canyon. From there the water is piped to a municipal water system for distribution.

Post 10: Nearby Communities

Look across the main canyon. Before the Grand Prix Fire, that area was covered with lush vegetation. Some living pockets were spared, which now provides a seed source for natural regeneration of the burned areas.

North-facing slopes are more shaded and cooler than south-facing slopes. Therefore, these soils and plants typically contain more moisture which in turn often supports a greater abundance of birds and animals than south-facing slopes.

California quail and California ground squirrels (right) are just a few animals that live in chaparral habitats. (Photo by Kim Boss)

Your walk continues through the Native Plant Garden and back to the parking area. The Native Plant Garden contains plants that represent some other communities in your neighborhood. **We hope that you enjoyed your visit!**

The Chaparral Neighborhood Trail

Welcome

This chaparral community is representative of many Southern California habitats. There may be one in your neighborhood, too. This area is recovering from the Grand Prix Fire of 2003 and it is a superb example of the vital role fire plays in forest ecology.

The trail is an easy half mile walk. Stop at the numbered posts along the trail to read the corresponding comments in this brochure.

The chaparral community is common to dry Southern California landscapes. The thick leathery leaves of drought tolerant species are characteristic.

Many chaparral species are fire tolerant, and some are fire dependent. We will see examples of both types along the way. Common shrubs include chamise, manzanita, California lilac, oak, buckthorn, sumac, mountain mahogany, tree poppy, toyon, holly leaf cherry, and yucca.

Kiosk: Start of Trail

The majority of trees at this location are coulter pine. Their cones are the heaviest of any American pine tree. The small coulter pines toward the road grew naturally from the seeds fertilized from the ash of the Grand Prix Fire. The giant sequoias seen here are not native to Southern California

Community in the Sky — Golden eagles, red-tailed hawks, turkey vultures, scrub-jays, and ravens are all common in this area. In fact, 290 different species of birds are native, and of that number, some 171 species breed in our forest.

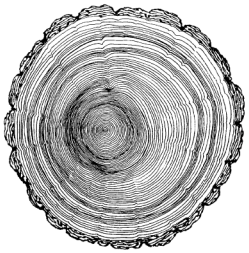
Post 1: Flooding and Erosion

The sand, gravel, and debris were deposited during the heavy rains in December 2003, just a month after the Grand Prix fire. Vegetation that stabilizes the soil in the watershed was burned. With nothing to hold the soil on the hillside, massive erosion significantly changed the landscape.

These powerful, fast moving debris flows are very dangerous to human communities downstream. Several people lost their lives in the Christmas Day Flood of 2003 in Waterman Canyon and Devore, just a few miles from here.

Gray foxes also live in the chaparral. The gray fox is the only member of the dog family that can climb trees, usually to seek refuge or in search of roosting birds. (Photo by Darren Coffey)

Post 2: Tree Rings



You can clearly see annual growth rings on this coulter pine stump, the wider the rings the better the growing conditions. Can you tell whether the climate here has been getting wetter or drier over time?

Post 3: Post Fire Recovery

When fire ecologists speak of fire adapted ecosystems, they are talking about how the vegetation responds to the fire regime. This includes fire return interval, fire intensity, severity, and size.

The predominate plants here are chamise, white thorn, and yerba santa. These plants are considered fire adapted because of their ability to resprout from their roots after a fire occurs.

Post 4: More on Post Fire Recovery

We are in the midst of a sea of resprouting scrub oaks. Scrub oaks resprout from a root burl. Notice how much they have grown since 2003! Growth from acorns, which are the oak's seeds, would take several years to grow.

Community on the Ground — Our neighbors here include wood rats, lizards, and snakes. Wood rats are also called packrats because they are constantly adding new objects to their nests, called middens. Middens are constructed primarily of sticks, leaves, and grasses, and are found in the brush. Maybe you will be able to spot one.

Post 5: Hoary-leaf Ceanothus

This plant is fire dependent rather than fire adapted. It needs fire to reproduce. It does not resprout. The seeds will only germinate after being heated by fire. The fire intensity is important because if the fire burns too hot, it will kill the seeds. Additionally, these plants take 15-20 years to produce good seed crops, so if fires are too frequent, new seeds will not be produced and the Ceanothus will die out.

All Ceanothus species are nitrogen fixing plants. Nitrogen fixing plants are important to an ecosystem because they convert nitrogen gas from the air into a form that all plants can use.

Post 6: Invaders

At this site you see non-native grasses. Grass tends to spread fires rapidly, and can carry fire into areas where fires do not normally occur or spread, which does great damage to the environment. This recently happened to the Joshua tree forests of Yucca Valley and Joshua Tree National Park on the east side of the San Bernardino Mountains. The grasses also cause areas to burn more thoroughly, so no vegetation is spared in the burned area to provide see for regeneration.

Too frequent fires in chaparral result in "type conversion." The chaparral is replaced by grasses, which do not support the same plant and animal Communities. The Chaparral Neighborhood is gone.