The Chaparral of California

In much of California, botanical activity begins with the winter rains. Hills turn green, trees and shrubs put out new foliage, and a parade of wildflowers begins that extends into early summer. It begins along the coast, extends into the foothills of the mountains, and in a good year, out into the desert. After that, the soil becomes bone dry. Plant growth comes to a halt except in the high mountains, where cold temperatures and snow cover delay the beginning of the process and extend the parade of flowers well into the summer.



Near San Diego the coastal chaparral is relatively lush, and home to the endemic Torrey Pine, *Pinus torreyana*.

Much of California's coastal and hillside vegetation is classified as "chaparral," and is characterized by evergreen shrubs and trees with tough leathery leaves. In the south, the shrubby cover gradually becomes shorter and sparser toward the east, merging into the Mohave desert. It also lines the foothills of the Sierra Nevada, merging into the mountain forests above 5000 to 6000 feet. It is broken here and there by meadows and grasslands, which tend to fill up with California poppies and other herbaceous wildflowers in the spring.

Toward the southeast, rainfall decreases and the chaparral becomes shorter.

Similar vegetation and similar transitions are found around the world in regions of mild, rainy winters and hot, dry summers. In South Africa, the shrublands are called "fynbos" and confined to the

southwestern Cape region, in Australia similar "mallee scrub" is characteristic of the southern part of Western Australia and again around Adelaide. Similar Mediterranean scrub, or "maquis," occupies the coastal regions of southern Europe and north Africa, and in Central Chile it is known as "matorral."

This is vegetation naturally prone to burning, much to the distress of the many owners of expensive hillside homes. The native plants, however, are adapted to fire and renewed by a periodic burn. Burns also create open space for wildflowers. Long-term prevention of fire

Shrubs resprout from the base after a fire, and bare spots will fill with herbaceous wildflowers in the spring.

in the chaparral, in fact, results in brushy buildup that increases the risk of a more catastrophic fire.

Herbaceous annuals, biennials and perennials pop up during the wet season, providing some of the most diverse and colorful displays to be found anywhere. Here is a representative sample.

Eriastrum densiflorum form bright blue mats east of San Diego.

Along the Big Sur coast, mounds of yellow lupine, *Lupinus arboreus*, form spectacular displays in late spring.

One of many species of Indian Paintbrush, *Castilleja*, growing in San Diego County.

Encelia farinosa, a member of the sunflower family (Asteraceae), blooms in the Box Springs Mountains near Riverside.

Calystegia macrostegia is a member of the morning glory family, Convolvulaceae, here growing in the foothills east of San Diego.

Penstemon labrosus, in the Ranunculaceae, adds to the red end of the spectrum, attracting and feeding some of the many hummingbirds that pass through California.

Two more penstemons, P. spectabilis and P. utahensis, provide tall accents for the California spring.

Eriodictyon crassifolium forms a spectacular bloom of lavender-blue east of San Diego.

Fremontodendron californica (Malvaceae) is a flowering

Delphinium cardinale is another plant adapted for pollination by hummingbirds. It is growing here in the hills east of San Diego among the charred branches of a shrub that burned down in a recent fire. Eriogonum fasciculatum is in the background.

Fremontodendron californica (Malvaceae) is a flowering shrub found in chaparral on the lower slopes of mountains from southern California to the Sierra Nevada.

Flat-topped yellow yarrow, Achillea, growing east of San Diego.

The yellow blossoms of what I called *Brodiaea* when I was a student. It seems to go by *Bloomeria crocea* these days.

Sidalcea malvaeflora, growing in the hills east of San Diego.

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Mentzelia laevicaulis from the Mt. Lassen area in northern California