

# CALIFORNIA CHAPARRAL INSTITUTE

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## CHAPARRAL FACTS

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## Tiny things



Ceanothus chaparral in the Trabuco Ranger District of the Cleveland National (Chaparral) Forest... which should be renamed the Cleveland National Chaparral Recreation Area!

LW1: Wherefore art thou Chaparral?



## **What is Chaparral?**

Chaparral is NOT a plant, a herb sold in health food stores (they're actually selling ground up leaves from the creosote bush...a desert shrub), or a 1960's television show...

[Chaparral does NOT need fire to remain a healthy plant community and does NOT need fire to continue to exist since humans have unnaturally increased the frequency of ignitions \(contrary to what you may read in some books\)...](#)

[Chaparral has NOT become overgrown due to fire suppression...](#)

And you can't find true chaparral in Texas!

**Chaparral is California's most extensive, native plant community.** It is also the state's most characteristic wilderness, dominating foothills and mountain slopes from the Rogue River Valley in southern Oregon to the San Pedro Martir in Baja California. Chaparral provides the deep green backdrop for Santa Barbara, the soft hues surrounding the gold country along the western slopes of the Sierra, and a valuable wilderness retreat for a rapidly growing San Diego. Take a drive into the hills surrounding nearly every southern California metropolitan area and you are immediately immersed in chaparral.

Properly defined, chaparral is a semi-arid, shrub dominated association of *sclerophyllous*, woody plants shaped by summer drought, mild, wet winters, and infrequent fires (with natural intervals between fires being 30 to 150 years plus). Sclerophyllous is a term coined by German botanist, Andreas F. W. Schimper in 1898. Referring to mediterranean climatic regions in his classic 844 page "Plant Geography Upon a Physiological Basis" he said, "The mild temperate districts with winter-rain and prolonged summer-drought are the home of evergreen xerophilous (dry-loving) woody plants, which, owing to the stiffness of their thick, leathery leaves, may be termed sclerophyllous woody plants."

Meaning "hard-leaved" in Greek, *sclerophyllous* leaves are advantageous in a semi-arid climate because they reduce evaporation through a variety of traits including waxy coatings, thicker cell layers, and recessed *stomata*, the pores in leaves permitting evaporation and the exchange of oxygen and carbon dioxide. Chaparral is primarily a California phenomenon, although there are some wonderful chaparral "islands" at higher elevations in parts of Arizona (such as in the Catalina Mountains above Tucson), and similar shrublands in the central Rocky Mountains and Northeastern Mexico.

There have been several efforts to classify chaparral plant communities, with one of the most recent identifying over 50 different variations or series ([Sawyer and Keeler-Wolf 1995](#)). Although these categories are helpful when doing detailed work, they are overwhelming to the average citizen trying to grasp the overall picture. Therefore, we have consolidated them into seven basic types found in California, based on the most dominant plant species present (photo examples can be found on our [WHERE TO FIND CHAPARRAL](#) page):

**Red Shanks**

**Ceanothus**

**Chamise**

**Mixed (xeric, mesic, maritime, serpentine)**

**Manzanita (including the endemic Ione type)**

**Scrub Oak**

**Montane (including bush chinquapin type)**

Where no particular species dominates the scene, meaning at least 60% of the cover is composed of a single species, the default classification "mixed chaparral" applies. Although the largest and most pristine stands of chaparral occur in Southern California between 500 to 4,500

feet in elevation, smaller patches exist along the coast such as those on Carmel Mountain in San Diego County. Stands of red shanks chaparral can be found at 7,000 feet in the San Jacinto Mountains in Riverside County. However, if there is one defining characteristic of nearly all chaparral, it is the presence of chamise (*Adenostoma fasciculatum*), the ecosystem's most pervasive shrub.

More details on types:

[- Ione Chaparral](#)

[- Maritime Chaparral](#)

## Why is chaparral important?

Because chaparral defines California as a place. It is our native landscape. It provides essential protection against erosion, allows underground water supplies to recharge, moderates local climates, provides important habitat for an interesting assortment of animals, and offers unique opportunities to remain connected to nature on a local level. As technology and city-centered lifestyles continue to create greater distances between us and the natural world, chaparral provides a way for Californians to remember the value of wildness.

Unfortunately, some consider old-growth chaparral "trashy" and unable to sustain a healthy ecosystem after 30 years or so of growth. They feel we need to burn chaparral on a regular basis. These are *value statements*, not scientifically-based conclusions. They are harmful ideas because they promote actions that will eliminate the last remaining stands of old-growth chaparral and can lead to the conversion of younger chaparral to weedy grasslands through inappropriate vegetation "treatment" activities such as prescribed burning and "mastication" (grinding up chaparral with huge mowers).

Please see our [National Chaparral Recreation Plan](#) that changes how the four National Forests in Southern California are classified and managed in order to better protect the chaparral ecosystem and to help all Americans develop a more rewarding connection with nature.

**A quick word about terminology.** The words biome, ecosystem, habitat and plant community are often used interchangeably in reference to natural communities. Is the chaparral a biome, habitat, or...? It really depends on your reference point.

Sometimes reference is made to the "chaparral **biome**" which includes ALL five Mediterranean-type climate shrubland regions in the world (California, central Chile, the Mediterranean Basin, South Africa, southwestern Australia). Since the word chaparral specifically applies to California shrublands, it is probably better to use some other term such as "Mediterranean-type biome" or "sclerophyllous biome". The concept of an ecosystem encompasses not only the living components, but also non-living aspects, including sunlight and nutrient cycles, etc. So when referring to the chaparral ecosystem, you are including the total picture not just the living things present.

A plant **community** is restricted to a certain geographical area with a common assemblage of plant species. So a manzanita chaparral plant community would be different from one dominated by chamise. Finally, **habitat** refers to the place an animal lives, such as the habitat for a wrentit is the chaparral.

## A Special Note to Wildland Firefighters

There is no question chaparral provides the perfect fuel for wildfires. It's hell to cut a line

through; whitethorn ceanothus jabs our skin, the shrubs continually resprout, and the deadwood we push aside provides excellent kindling. Understandably, some view chaparral as only a fire hazard and would prefer to see the stuff cleared down to mineral soil.

But our responsibilities as firefighters are rapidly changing. Because of population growth and increased development, changes are altering the outdoors in which we love to work. Due to increased fire frequency, many of the wildlands where we have fought fires in the past have become overwhelmed by weeds and, in some cases, have been completely replaced by them. That has not only increased the risk of working in those areas due to fine fuel loading, but is eliminating many of the natural environments we used to take for granted. Fires are increasing throughout the West and burning where they never have before, such as in the Mojave desert.

We need to recognize increased fire frequency and weed growth as serious threats to the natural places we enjoy and begin to see ourselves in a different light; as highly skilled resource managers trying not only to protect life and property, but also attempting to halt the wholesale elimination of native landscapes.

## Who Speaks for the Chaparral?

By Richard W. Halsey

Adapted from an article in the San Diego Union-Tribune

January 14, 2005

I live in California's wildland-urban interface, the fuzzy boundary between civilization and the natural landscape. I awaken each morning to a view of old-growth chaparral coating a nearby mountain like a carpet of green velvet. The recent heavy rains have inspired an explosion of manzanita and ceanothus flowers to powder the hillsides. The first sound I usually hear is that of the wren-tit, a secretive, little bird with a descending whistle that mimics the beat of a bouncing Ping-Pong ball.

This is my home, not in terms of ownership, but by providing a sense of place. Chaparral is distinctly Californian. It is our own native wilderness and defines who we are. Both the landscape and our lifestyle have been shaped by the same natural forces, drought and fire.

Yet many of us have unconsciously disconnected from the land in which we live because our hectic lives leave little room for such things. Hours on the freeway and trying to deal with everyday demands of civilization buries our innate love of nature with mountains of unfinished tasks, increased emotional tension, and a sense of isolation. Consequently, chaparral, our region's most characteristic wilderness, is viewed as something unknown, unimportant, and because of the recent fires, dangerous and in need of removal. The pejorative description of chaparral used in recent news stories reflects this perspective.

According to some reports, despite recent fires, Southern California "still has tens of thousands of acres of brush and dead trees that could fuel wildfires." Funding from the so-called Healthy Forests Restoration Act would go to communities threatened by wildfires, "including chaparral-choked areas." Old-growth chaparral stands are referred to as "decadent" or "scrub-invested savannas."

It is time for all of us to get out of our cars, throw a rock through the television set, get outside and look around. Our landscape is being misrepresented and condemned. We need to come to its defense. This is not about hugging trees; it is about planning for the future.

Forget politics for the moment, and how you may view preservation efforts by environmental groups. Ask yourself, how much natural, California heritage do we want remaining 100 years from now? Is the wildfire problem really about native shrubs or poor land planning? Do we really

want to grind-up and remove tens of thousands of acres of native landscape or do we need to help citizens understand they have a personal responsibility in maintaining a low-fire risk environment around their homes?

To answer these questions it is important to understand the truth about chaparral. Old-growth chaparral in excess of 100 years old is not "trash." It remains a productive, dynamic ecosystem. There is no scientific evidence to support the notion that native shrublands have become "decadent" or unhealthy due to overgrowth. In fact, seeds of many chaparral plants actually require 30 years or more worth of accumulated leaf litter before they will successfully germinate. Yes, many chaparral plant species require some fire cue for germination, but their seeds will survive in the soil until the next blaze, be it 30 years or 100 years from now.

The idea that "chaparral-choked areas" are responsible for causing large fires is related to one of the most repeated misconceptions regarding the system: past fire suppression efforts have allowed an "unnatural" accumulation of brush. This belief is based on the misapplication of studies relating to dry ponderosa pine forests that have nothing to do with California shrublands.

There are seven major types of chaparral in California, each with its own growth cycle. The accumulation of dead and living plant material varies significantly between each type. Mixed chaparral on north-facing slopes can accumulate more plant mass in 10 years than a stand of chamise chaparral will on drier, south-facing slopes in 80 years. Shrubs grow. It is a natural process. Those that die are replaced by others.

Fire suppression is not responsible for this pattern and fires have not been excluded in the chaparral of California. In fact, fire frequency has been increasing in lockstep with population growth. This process is threatening to convert many of our native shrublands to desolate patches of non-native weeds.

Although sponsors of the Healthy Forests Restoration Act promoted the notion that dying trees fueled the 2003 fires, this was not the case. Of the total acreage burned in the 2003 firestorms, only 5 percent involved forested land. With 88 percent of the Cleveland National Forest in Southern California composed of chaparral and related shrublands, the preserve is obviously misnamed.

There is no question chaparral is extremely flammable, especially during dry weather conditions. It is a byproduct of the Mediterranean-type climate we enjoy so much. However, the wildfire discussion needs to be refocused. We must begin to embrace the fact that we are part of nature. Our homes burn because we've allowed ourselves to forget our connection to the natural world. The chaparral is seen as the enemy when in fact it remains our last chance to reclaim California's wildness and preserve the quality of life made possible by the region's natural, open spaces.

When we don't know someone, it is easier to create prejudicial caricatures. Dismissive generalities are easy. However, once we actually meet them, know their name and spend some time understanding their place in the world, it becomes impossible to ignore them as individuals. The same applies to learning about places we are unfamiliar, places like the chaparral.

Take some time this spring, which begins in California while much of the rest of the country is snowbound, and follow a trail into our local foothills. Learn some of the names and habits of our region's wild citizens. Take a deep breath and smell the sage-flavored air. Sit quietly and listen. Better yet, bring along someone under 12-years-old. Little people have an uncanny ability to help us remember what is really important.

Welcome home.



The Los Padres National (Chaparral) Forest above Santa Barbara, California