

Fire and



Fire changes the landscape. Change can be painful, but can also offer opportunity. We don't usually look at a forest that has been burned as natural or beautiful, but fire is a part of nature. Here in the Los Padres National Forest wildfire shapes the ecosystems and enhances the survival of many species.



The plants and wildlife that live in the forest have adapted to the Mediterranean climate, rugged topography and wildfire. During a fire most animals can escape and return later when conditions improve. Plants have adapted in several ways:

- have fire-resistant qualities
- tolerate fire by re-sprouting
- die, leaving behind abundant seeds that are activated by fire.

Ashes Bring Wildflowers

Although burned and black after a fire, the soil is not sterile. Below the surface are viable seeds, bulbs and root systems, as well as beneficial microorganisms. Fire increases nutrients in the soil by releasing nitrogen, phosphorous and carbon from burnt woody vegetation. Encouraged by open space, sunlight, winter rain and newly fertilized soil, there is an explosion of new seedlings and colorful wildflowers after a fire.

Endemic Fire Followers

The seeds of these annuals require a fire cue to germinate.



Fire Poppy



Large-flowered Phacelia



Whispering Belle



Golden Eardrop

Frequent Fire Followers

The seeds of these annuals sprout without fire but will sprout more abundantly when enhanced by some fire cue.



California Poppies



Popcorn Flower



Lupine and California Poppy



Snapdragon

Facultative Seeders

These showy flowering plants can regenerate in two ways after a fire: - the burned plant can re-sprout - seed germination is enhanced by some fire cue.



Monkey Flower



Matilija Poppy



Sage



Canyon Sunflower

Re-sprouters

These perennials bloom later in the spring, after the annuals have flowered and gone to seed.



Mariposa Lily



Wild Hyacinth



Indian Paintbrush



Chaparral Sweet Pea

How Trees Survive Fire

Coast Live Oak



Thick fire resistant bark protects the oak even from high intensity fires and its smooth texture stops the flames from moving quickly up the trunk. The tree is also able to re-sprout, sending out new stems and leaves from the base of the tree as well as from its trunk and upper branches.



Bigcone Douglas-fir



These fragrant trees are found in shady canyons or on steep north facing slopes. They are usually affected by wildfires that spread into groves from the surrounding chaparral. They are fire resistant with thick bark and the ability to canopy sprout. But very hot fires can destroy entire groves.

Knobcone Pine



Since they grow in fire prone chaparral areas, knobcone pines have adapted to fire by having serotinous cones. These cones remain tightly closed and sealed and will only open to release their seeds after a fire burns through the trees.



Coulter Pine



If these trees grow within or near chaparral, they will bear serotinous cones. If they grow in areas with infrequent or low intensity fires, the cones will open normally, without a fire cue. There are large numbers of seedlings after a fire and they thrive in the full sunlight of newly opened areas.



Coulter pines have the heaviest cones of all the pines in the world. They often weigh 4 - 5 pounds and can measure 14 inches long!

Ponderosa Pine



Other trees like redwoods and ponderosa pines survive because they have thick, fire resistant bark.

Redwood



Living With Wildfire

The Wildland Urban Interface

Wildfire is natural + More people now + People start fires + Seasonal hot dry winds = Disaster

The worst fire climate in the country is here in southern California. Fire has been and will always be a part of life here - with or without chaparral. Because of our Mediterranean climate and seasonal hot dry winds, we live in a fire prone environment, so even structures can promote and spread devastating firestorms.

Southern California has become a more dangerous place to live partly because it is such an attractive place to live. Pleasant weather and natural beauty bring more people and these new residents are pushing the suburbs deeper into wildlands. As the population increases, more homes are being built in severe fire zones. More people living in these areas mean that more people are in harm's way.

With more people fires are more likely to happen: downed power lines, careless barbecues, abandoned campfires, sparks from equipment and vehicles -- and the wild card of arson. Combine unsafe building patterns with proximity to flammable chaparral covered slopes and a normal California wildfire becomes a recipe for disaster. Fire in the Wildland Urban Interface is now more common.

The hot, dry winds of autumn arrive at the end of a six month dry season. Blowing at 50 to 60 mph, these hot, dry winds create larger, hotter and faster fires, which become impossible to control. With suburbs encroaching into wildlands, fighting fire becomes more complex. Resources are now directed towards saving lives and property. Evacuations are implemented and there is more coordination between wildland firefighting agencies and structural firefighting agencies.

Deaths and serious injuries
Homes and possessions lost
Neighborhoods devastated
Natural resources destroyed

