

Why California Oaks Are Important By Rebecca Miller-Cripps

Oaks are identified as "the" California landscape. When you approach the foothills of the Sierra, that dark green band of trees interspersed with golden grasses on the rolling hillsides says you're moving into the mountains. Those trees are blue oaks that exist only in a specific band around the edge of the central valley. Blue oaks, especially, are extremely drought-tolerant and tough trees, but they are extremely slow growing.



Due to competition with non-native ground covers and with pressure from predators (such as gophers, turkeys, deer, and cattle), many types of oaks—like blue oaks in Northern California and Engelmann oaks in Southern California—are not regenerating (creating viable, long-lived oak seedlings) in the wild.

In the past, oaks were cut to shore up mines. In the more recent past, oaks have been removed to create pasture and vineyards, and to create housing developments. In addition, people kill old, long-established oaks by planting shade plants under them and watering them all summer long, creating fungal diseases that will kill oaks. Sometimes, people who plan to develop their property in the future will remove oaks in an effort to avoid having to pay mitigation for the removal of large trees.

Why should we be concerned about protecting oaks? What good are they?

- Oaks enhance property values: It's been demonstrated in studies that oak trees on your property increase its property value. Living next to open space that contains oak trees also increases property values.
- Oaks are landscape workhorses: All California oaks are very well adapted to the elevations where they occur naturally. They provide the backbone for "right plant/right place" kinds of landscaping that reduce the need for extra irrigation and fertilizer.
- Oaks filter water: The leaf litter that accumulates under oak trees prevents soil erosion by buffering the impact of rainfall. Leaf mulch helps retain soil moisture, lowering soil temperature and discouraging weeds. All water in California flows through oak woodlands.
- Wildlife depends on oaks: Oaks support over 300 species of vertebrate animals and provide food for more species of moths and butterflies than any other plant. Insects that live on oaks provide high-protein food for birds to feed their nestlings. If you are concerned about the reduction in wildlife habitat due to development and land fragmentation, plant an oak! According to Douglas Tallamy, Professor and Chair of the Department of Entomology and Wildlife Ecology at the University of Delaware and author of "Bringing Nature Home: How You Can Sustain Wildlife with Native Plants," the single most important step to take in protecting wildlife is to plant a native oak.
- Oaks provide services to human beings: Ecosystem services provided by oak forests and savannahs include recreational opportunities, shade and shelter, aesthetic values, erosion

control, air and water filtration, and food and fuel. In addition, oaks remove carbon dioxide (a greenhouse gas) from the air to use during photosynthesis and return breathable oxygen to the atmosphere.

However, the threats to oaks are many:

- Construction removes entire trees or damages the root zone resulting in oak tree death;
- Subdivision of property and fragmentation in land use reduces open space for oak savannah and forest, threatening seedling recruitment in some oak species;
- Inappropriate landscaping practices, designed to support exotic landscape species, threaten oak health.

To address these problems, in 2004, California passed SB 1334, oak woodlands conservation legislation under CEQA, now a part of the Public Resources Code. Every county is required to adopt policies that create an oak protection program.

So next time you are thinking of planting a shade tree on your property, consider planting an oak.

Adapted from the University of California “Oak Woodland Management” Program, http://ucanr.org/sites/oak_range/ by Rebecca Miller-Cripps, University of California Cooperative Extension Master Gardener of Tuolumne County.

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