

# California's Redwood State Parks



## Our Mission

The mission of California State Parks is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.



California State Parks supports equal access. Prior to arrival, visitors with disabilities who need assistance should contact the park they plan to visit. If you need this publication in an alternate format, contact [interp@parks.ca.gov](mailto:interp@parks.ca.gov).

### CALIFORNIA STATE PARKS

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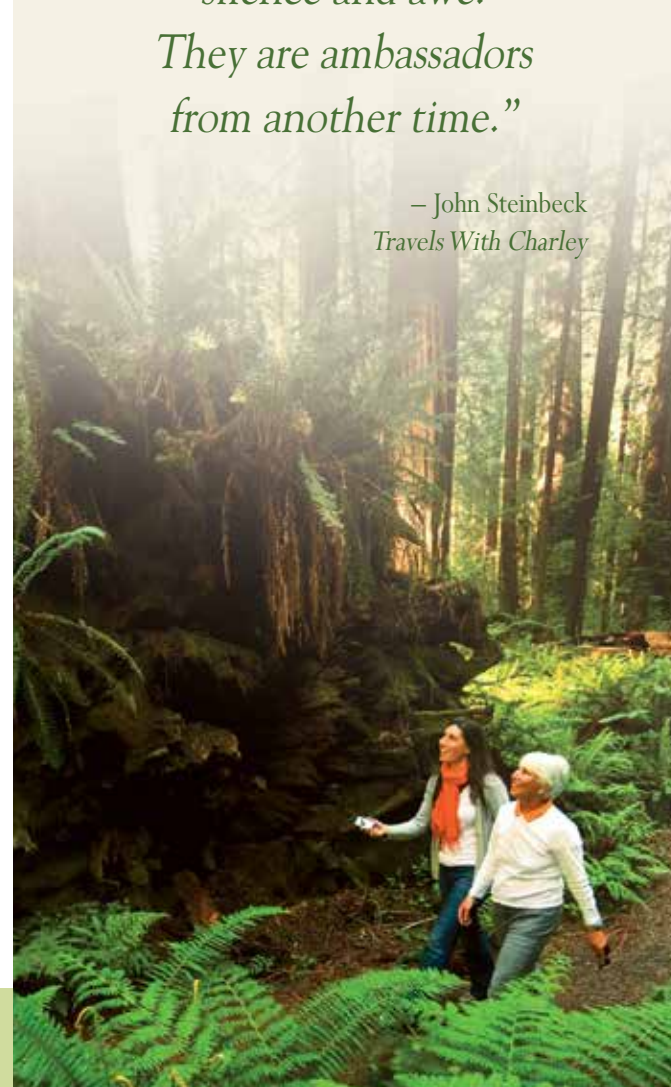
Discover the many states of California.™



[SaveTheRedwoods.org/csp](http://SaveTheRedwoods.org/csp)

*“The redwoods, once seen,  
leave a mark or create  
a vision that stays  
with you always.  
From them come  
silence and awe.  
They are ambassadors  
from another time.”*

— John Steinbeck  
*Travels With Charley*



## CALIFORNIA'S REDWOOD STATE PARKS

### *Invitation to Discovery*

#### **Step into a forest of redwoods.**

First you see the huge shaggy trunks. Suddenly you feel small—and intensely curious. The air is cool and moist. A small stream murmurs over rocks in the distance. Each step on the path feels soft, springy.

Tiptoe past nodding ferns, neon-green mosses and pink rhododendrons. Feel the sunlight sifting down from above, warming your shoulders. Tilt your head way, way back. You still can't see the tops of these trees. You can't take their measure in a single glance, nor fathom the fullness of their lives.

Today's trees grew in North America long before there was a United States or even any European explorers on the continent. A few predate the Roman Empire. Their ancestors lived around the time of the dinosaurs.

Forty-nine of California's state parks provide habitat and preserve these ancient trees—both the giant sequoias of the Sierra Nevada and the coast redwoods of the north and central coast. In their awe-inspiring presence, you can scale peaks and explore nearby tide pools; watch salmon spawn and condors soar; swim in a clear, rocky stream; ski on a blanket of snow or walk in a rainforest. From a cozy campsite, you can gaze at the stars through the limbs of some of the oldest and largest beings on Earth.

California's 49 redwood state parks attract visitors from all over the world. Isn't it time to discover them for yourself?

## PROTECTING THE PARKS

Native peoples along the northern and central California coast lived respectfully among redwoods for centuries. Chilula native elder Minnie Reeves called them “a special gift from the Great Creator. Destroy these trees and you destroy the Creator's love . . . and you will eventually destroy mankind.”

When gold was discovered in 1848, hundreds of thousands of newcomers came to California. Some cleared redwood forests for pastures and farms. Others sold redwood products to booming communities. Thousand-year-old trees were cut down to make posts, shingles, grape stakes and railroad ties.

*“A grove of giant redwoods or sequoias should be kept just as we keep a great or beautiful cathedral.”*

—Theodore Roosevelt

Save the Redwoods League began to fight back in 1918. “I would consider the destruction of these trees one of the greatest calamities in the whole history of American civilization,” said League co-founder and American Museum of Natural History president Henry Fairfield Osborn. Along with other organizations such as the Sempervirens Club and the California Federation of Women's Clubs, the League raised millions of dollars, bought threatened stands of ancient redwoods, and transferred them to the state for protection as public parks. According to an early League director, Newton Drury, they were often “just a jump ahead of the sawmills.”

Ordinary people made those first preserves possible—and have helped establish the 49 state parks that protect redwoods today. Threats to those parks are numerous, but so are the people who care about them. Enjoy your magnificent inheritance—and ask what you can do to pass it on.



Humbolt Redwoods  
State Park, 1936



## WHAT'S LOST? WHAT'S LEFT?

About 120,000 acres of ancient coast redwood forests are left in California—just over five percent of the 2.2 million acres that grew here before European settlement. These ancient forests are also called “old-growth” forests. Old-growth forests:

- generally date back hundreds, even thousands, of years;
- have never been fully logged off (although selective harvesting may have been done);
- have large live trees, dead trees, natural openings, and multiple layers of vegetation from the ground to the treetops; and
- support a complex, interdependent community of plants and animals.

California has more than 1.5 million acres of coast redwood forest that have been logged at least once. That's an expanse about twice the size of Yosemite National Park. Given enough time, these “second-growth” forests can develop old-growth characteristics.





## REDWOODS AND CLIMATE CHANGE

Redwoods are endurance champions. They've survived shifts in climate over millions of years. Now they're being tested again, by rapid changes in temperature, moisture from fog, light and fire frequency.

California's state parks have become a laboratory for figuring out what this new era of climate change means for the future of redwood forests.

In initial findings, scientists from Save the Redwoods League, Humboldt State University, and the University of California at Berkeley brought good news. Some virgin redwood forests have actually increased their rate of growth in recent years.

The scientists also found that the size and longevity of redwoods are helping the trees store more climate-altering carbon dioxide (carbon sequestration) than other plants. Even old redwoods continue to grow, each year adding more carbon-filled wood than smaller, younger trees. After redwoods die, their rot-resistant wood keeps that carbon out of the atmosphere for a long time.

As climate change progresses, redwoods' robust good health may have its limits. But one thing is certain: protecting redwoods and other forests is part of the climate-change solution.



*Big, old redwoods are impervious to minor changes in the weather. Core samples, however, can reflect such severe weather events as the drought of 1924.*



*Tree-climbing researchers gather a more accurate and comprehensive picture of redwoods' response to past climatic changes.*





## COAST REDWOOD

*Sequoia sempervirens*



### WHERE IT GROWS

In pockets on a 450-mile-long stretch of coast from central California north to just across the Oregon border

### SIZE

Tallest tree in the world: the tallest known coast redwood is 379 feet, taller than a 30-story building. The volume of the largest known coast redwood is about 39,000 cubic feet (as big as 23 school buses). It has about 1.12 billion needles.

### SHAPE

Tall and lean: 12 to 16 feet in diameter six feet above ground. Thinner branches than giant sequoias

### REPRODUCTION

From seeds and sprouts

### LEAVES

Flat, needle-like, arranged in flat sprays resembling hemlock or fir

### CONES

Small (5/8 inch to 1 1/8 inch long); each cone contains 50 to 60 seeds that mature in one year



### BARK

Up to 1-foot thick at the base of the largest trees; almost no flammable pitch or resin

### WOOD

Contains chemicals — tannins and phenolics — that make it more resistant to invasion and decay than other trees. Douglas-fir, for example, hosts 30 species of bark beetles in redwood forests, while coast redwoods host only four.

### LIFE SPAN

Up to about 2,500 years

### GROWTH

In their early years, coast redwoods follow the same growth pattern as giant sequoias, but generally surpass them in height somewhere between 50 and 100 years of age.



# GIANT SEQUOIA

*Sequoiadendron giganteum*



## WHERE IT GROWS

In 75 groves on western slopes of California's Sierra Nevada range

## SIZE

Most massive tree in the world: the volume of the largest known giant sequoia, the General Sherman Tree in Sequoia National Park, is about 52,500 cubic feet (as big as 31 school buses). It is 275 feet tall, 36.5 feet in diameter at base, and has about 1.94 billion leaves.

## SHAPE

Trunk stouter than coast redwood, with thicker branches. Giant sequoia trunks reach 20 - 30 feet in diameter, six feet above ground.

## REPRODUCTION

Only from seeds, which need sunshine and bare mineral soil to sprout and prosper. This makes fires and other disturbances essential to its long-term survival.

## LEAVES

Small, scale-like; resemble juniper or cypress leaves

## CONES

1½ to 3 inches long, contain 100 to 300 seeds that take three years to mature

## BARK

One to two feet thick at the base of the largest trees. Same fire-resistant qualities as coast redwoods.

## WOOD

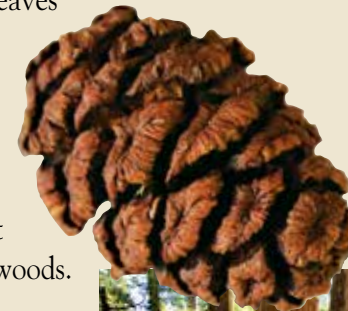
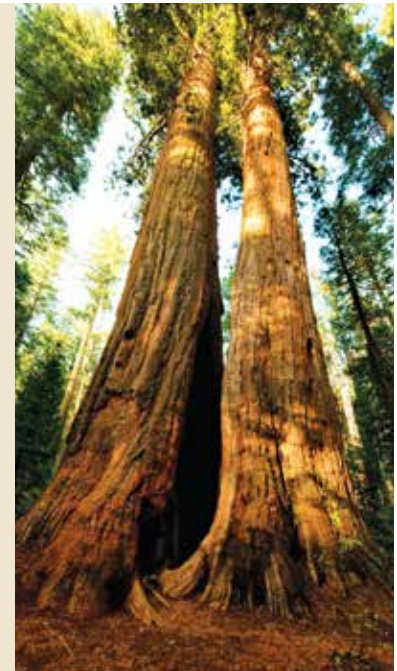
Has decay-resistant chemical qualities. Fractures more easily and is less valuable for timber than the coast redwood.

## LIFE SPAN

Up to about 3,200 years

## GROWTH

Older trees grow upward more slowly, but continue adding girth to their trunks and branches, even when more than a thousand years old.



400  
YEARS AGO





TODAY



## THE COAST REDWOODS

 143,000 acres  
PROTECTED BY CALIFORNIA STATE PARKS

 227,000 acres  
PROTECTED BY OTHER AGENCIES

 1,260,000 acres  
PRIVATELY OWNED

## CALIFORNIA'S 49 Redwood STATE PARKS





## LIFE IN THE COAST REDWOOD FOREST

*“What is the purpose of the giant sequoia tree? . . . to provide shade for the tiny titmouse.”*  
—Edward Abbey



### BANANA SLUG

Banana slugs are natural recyclers, making rich soil from dead plants and animal droppings on the forest floor. The biggest individuals are almost ten inches long and can slide along at 6.5 inches per hour.



### SALMON

It's a perfect partnership. Redwoods provide shade for the cool streams that salmon need. The trees' woody debris creates deep pools where fish can take refuge from predators. Salmon, in turn, supply redwoods with nutrients after they spawn, die, and are left along streams and on the forest floor by scavengers.



### TRILLIUM

Usually ants disperse trillium seeds, but sometimes wasps airlift the seeds to new parts of the forest.



### SPOTTED OWL

You might hear the distinctive hoot of a spotted owl when you visit an old-growth forest, but you're unlikely to see an owl, as it prefers to live 40 to 200 feet above the ground.

### THE COAST REDWOOD CANOPY

Sponge-like mats of soil deposited in the upper branches of ancient redwoods support aerial worlds of worms, insects, salamanders, and mammals. Some of these mats have the volume of a small school bus and support shrubs and trees up to 40 feet tall.



### MARBLED MURRELET

About the size of a robin, the marbled murrelet travels daily from its nest in the top of an old-growth tree to feed on fish in the ocean. In some places, that's a 30-mile commute.



### SWORD FERN

Found in every coast redwood forest, the sword fern is named for a small bump at the base of its leaflet that resembles the hilt of a sword. Like most plants in the redwood forest, it can absorb fog water in through its leaves, as well as from its roots.



### PACIFIC GIANT SALAMANDER

Most amphibians are small and quiet. The Pacific giant salamander is big (about a foot long), and it barks. Found in temperate coastal forests, this is one of a few salamander species in the world that vocalize.