

YOU HAVE REACHED THE END OF THE OLD-GROWTH REDWOOD LOOP TRAIL at Henry Cowell Redwoods State Park. This grove has been admired and cared for by those who have walked this trail before you; please continue the tradition to ensure this grove will remain preserved forever. These incredible trees can only be protected with your help. Although your walk has ended we hope your interest and enthusiasm for the Coast Redwood continues.

Thank you for visiting Henry Cowell Redwoods State Park.

For more information come to our visitor center.



www.parks.ca.gov

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Mountain Parks
FOUNDATION

Henry Cowell Redwoods State Park

REDWOOD GROVE LOOP TRAIL

Henry Cowell Redwoods State Park preserves a 40-acre grove of the tallest tree species on earth. This unique ecosystem of ancient Coast Redwoods has captured the interest and dedication of many people throughout time. On this 0.8 mile (1.2 km) flat loop trail, you will discover the survival adaptations of the Coast Redwood and the inspiration this grove holds. Be prepared to experience the majestic beauty of an old growth coast redwood forest that stands as a tribute to the efforts of stewards—past, present, and future.



In order to continue to protect park resources and to make your visit more enjoyable:

- **Leave only footprints, take only photographs. All park features are protected.**
- **Watch for three-leaved poison oak.**
- **A drinking fountain and a semi-accessible restroom are located mid-trail just past #8.**
- **An ADA accessible restroom is located in the main parking lot of the park.**

- 1. WELCOME TO THE REDWOOD FOREST**

Take a moment to breathe in the fresh forest air, feeling the temperature difference between the parking lot and where you now stand. Look up. You have entered an old-growth Coast Redwood forest. This species of tree can grow beyond 300 ft. (91m) tall and live to the mature age of over 2,200 years. Rainy and foggy coastal conditions ensure there is enough moisture for their survival.
- 2. BUILT TO SURVIVE**

Coast Redwoods have many survival adaptations: bark up to 12 in. thick, roots that extend up to 60-80 ft. (20-27m) from the trunk, and extraordinary height. Tannic acid in the redwood bark gives it the cinnamon-red color and provides defense against insects, fungus and even fire.
- 3. REDWOODS AND FIRE**

More than 150 years have passed since the last wildfire burned through this grove.



Feel the trunk of this tree. The thick, fibrous bark insulates and protects the tree from fires. Although an intense fire may burn through weak areas in the bark and hollow out a tree, if enough living tissue remains unharmed, the redwood will survive and slowly heal its scars. You can find examples of this on the tree in front of you.

- 4. THE OTHER TALL TREE**

This stump is not a Coast Redwood, but rather, a Douglas Fir, and it was severely rotted by fungi and consumed by beetle larvae (neither of which happen often with Coast Redwoods). Due to its instability, the park felled this tree in order to protect hiking trails and visitors. The tree will remain in the forest and play an important role in the cycle of life. Over the course of a few hundred years, this tree will continue to decompose and rot and provide nourishment for other forms of life. Mature Douglas Firs commonly reach heights of 250 ft. (76m) and live around 500 years.
- 5. REDWOOD FAMILY CIRCLES**

Coast Redwoods have the ability to sprout from their bases, producing shoots that will grow into entire trees. You are currently standing in the middle of a redwood family circle, where a larger Coast Redwood once grew, and left behind its offspring. The trees in this circle sprouted from the base of a parent tree and are referred to as "clones" because they are often genetically identical. You can find young redwood sprouts just around the

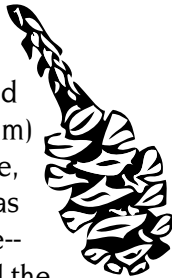
corner. Gently feel the delicate, new growth, and consider what will become of these young redwoods over time.

6. NEW LIFE FROM DEAD TREES

The tallest trees in the world have a shallow root system, growing only 6-12 ft. (2-4m) below the surface. Instead of growing deep, their roots grow outward, extending 60-80 ft. (20-27m) in all directions. Connecting their roots to other nearby redwood roots, these trees help one another remain stable in the ground until flood and wind finally collapse them. Fallen redwoods provide a fertile place for new trees to grow; count how many trees you see growing from this downed Coast Redwood.

7. THE GIANT

As the largest tree in the park, this Coast Redwood is aptly named The Giant and stands at 282 ft. (85m) tall, measures over 17 ft. (5m) wide, and weighs around 400 tons! It is as tall as a 27-story building. Imagine-- a tree this large grows from a seed the size of an oatmeal flake! Redwood seeds come from olive-sized cones containing 60-120 seeds. However, the forest floor is heavily shaded by other plants, making survival for a seedling rare. It is amazing to think that a tree the size of The Giant can germinate from something so small!



8. SLEEPING IN THE REDWOODS

When a wildfire breaches the bark, it can easily smolder the wood in the center of the trunk because it is dead tissue. The wood directly beneath the bark, on the other hand, is living tissue that transports nutrients and

water throughout the tree and does not burn easily. For this reason, many redwoods are hollowed-out during wildfires. These cavities do not affect the growth of the tree and have provided shelter for many living things over the course of their existence, including humans! From the late 19th to the early 20th century, visitors to this grove could enter this tree, walk on a wooden floor, and see a woodstove and a window inside. Evidence of the window can still be seen in this cavity today.

9. CALIFORNIA BAY LAUREL TREE

Under your feet, the crunch of dry California bay leaves release a spicy aroma. Reach down, pick up a long, slender, green leaf and gently inhale. This bay leaf is different from the Italian bay leaf commonly used in cooking; it's 3x stronger! Squirrels, deer, and birds eat the round bay nut. Traditionally, indigenous tribes of the area used them for making flour and a coffee-like beverage.

10. A GAP IN THE CANOPY

Take a look at the blue sky above you, and the diversity of plants before you. How many different species do you see? Microhabitats like this are found in old-growth redwood forests where there is a gap in the canopy, and increased light necessary for photosynthesis. These patches can sometimes be home to highly specialized plants and animals.

11. BURLS

The bumpy growths on this tree are called 'burls'. Burls are masses of dormant tissue that can spout new roots or shoots. If the tree is damaged or collapses, the burls can reestablish new branches and leaves, sometimes forming a new tree itself. Burls typically grow slowly over time, indicating

old age. Fire scars also indicate age. How high up the trunk can you find fire scars on this tree? At least once in its life, this tree was significantly burned. After the fire, burls on the trunk sprouted and grew into the branches we see today.

12. BANANA SLUGS

Under the clover-like plant called Redwood Sorrel, you might catch a glimpse of a Banana Slug, which can reach up to 10 in. in length! Banana Slugs are native mollusks who help recycle nutrients in the redwood forest by consuming many kinds of debris like plant matter, fungus, and decaying organic material. During warm summer months, these slugs reduce their daytime activity and retreat underground and inside rotting logs.



13. REDWOOD REPRODUCTION

Coast Redwoods can reproduce both by seeds and by basal sprouts—the shoots growing at the base of larger redwoods. Only 5-10% of redwood seeds germinate. More often, redwoods begin as basal sprouts from either the root system of adult trees, as was the case at #5, or from the root collar burl, as is the case with the tree in front of you. When a larger redwood experiences a disturbance, or dies, this burl tissue produces basal sprouts. How many separate trunks can you count growing from the root collar burl?

14. THE PHANTOM OF THE FOREST

White-leafed albino redwoods, located on the bottom left side of this redwood tree, are referred to as "Ghosts of the Forest" and are a result of random mutation. They lack chlorophyll, which green plants need to make their own food through the process of photosynthesis. The green

redwood tree provides food for the albino, keeping it alive. Research has found that the albino leaves contain more metal pollutants than the adjacent green leaves, and suggests that the albino redwood tree is removing pollutants from the soil and benefitting the larger, green redwood tree. Look carefully for more albinos in the Redwood Grove.

JETER PLAQUE

On your way to stop #15, locate the Jeter plaque on the left side of the trail. In the early 1920's William T. Jeter and his wife, Jennie led a community movement to transition this grove from the privately-owned Welch's Big Trees Resort to a county-owned public park. They successfully preserved an area of old-growth redwood forest and in 1931 Santa Cruz County Big Trees Park opened to the public. A detailed land transfer between the County and the State combined the Redwood Grove with donated surrounding property, establishing Henry Cowell Redwoods State Park in 1955.

15. DAWN REDWOOD

This slender tree is the Dawn Redwood. A close relative of the Coast Redwood, it was thought to be extinct until the late 1940s, when it was rediscovered in a remote valley in China. Both Coast Redwoods and Dawn Redwoods grew across the Northern Hemisphere for over 100 million years. There is another specimen of this deciduous redwood planted near the park entrance kiosk; both trees were reportedly planted on the same day more than 65 years ago. A Giant Sequoia has also been planted so all 3 species of redwoods can be compared.