

Coast Redwoods (*Sequoia sempervirens*)

The Tallest Trees in the World

Standing at the base of Earth's tallest tree, the coast redwood, is one of life's most humbling and amazing experiences. These California trees can reach higher than a 30-floor skyscraper (more than 370 feet), and their trunks can grow 26 feet wide! Even more incredible: these trees can live for more than 2,200 years. Some coast redwoods living today were alive during the time of the Roman Empire!

History

Redwoods once grew throughout the Northern Hemisphere.

The first redwood fossils date back more than 200 million years to the Jurassic period. Before commercial logging and clearing began in the 1850s, coast redwoods naturally occurred in an estimated two million acres (the size of three Rhode Islands) along California's coast from south of Big Sur to just over the Oregon border. When gold was discovered in 1849, hundreds of thousands of people came to California, and redwoods were logged to satisfy the explosive demand for lumber and resources. Today, only four percent of the original old-growth coast redwood forest remains. Most of the coast redwood forest is now young. The largest surviving stands of ancient coast redwoods are found in Humboldt Redwoods State Park, Redwood National and State Parks and Big Basin Redwoods State Park.

Biology

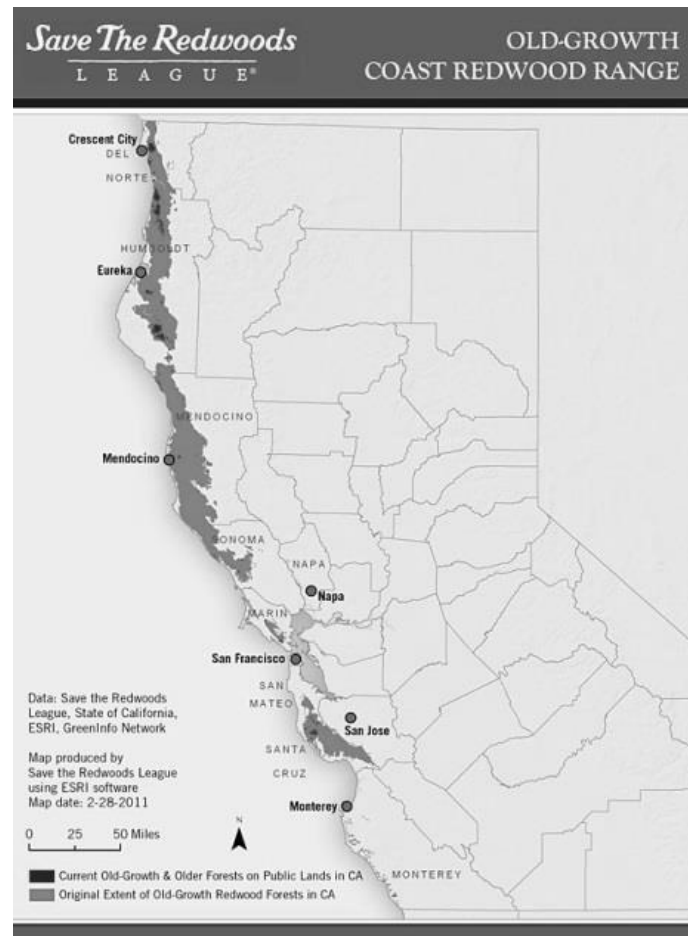
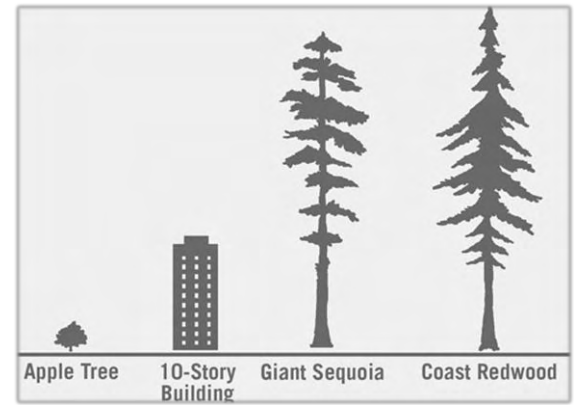
The coast redwood is one of the world's fastest-growing conifers (cone-bearing trees.) In contrast to the tree's size, redwood cones are very small—only about an inch long. Each cone contains many tiny seeds. Redwood seedlings grow rapidly, sometimes more than a foot annually in good conditions. Young trees also sprout from the base of a parent trunk, taking advantage of the energy and nutrients in the established root system.

Frequent, naturally occurring fires play an important role in maintaining coast redwood forests because they rid the forest floor of combustible materials. Forest fires create space for redwood seedlings (and other plants) to grow. In contrast, decades of fire suppression practices usually result in the accumulation of dead plant material that may fuel intense, destructive fires.

Redwoods can usually survive natural forest fires because of their thick (up to 12 inches), protective bark.

Redwoods get their name from the beautiful reddish hue of their bark. Redwood bark is soft, fibrous and rich in tannins (which help prevent insect damage).

Where coast redwoods live, temperatures are moderate year-round. Winter rains provide the trees with much-needed water, and dense summer fog contributes moisture to the forest during the dry summer months.



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The Three Redwoods

	<i>Coast Redwood</i> <i>Sequoia sempervirens</i>	<i>Giant Sequoia</i> <i>Sequoiadendron giganteum</i>	<i>Dawn Redwood</i> <i>Metasequoia</i> <i>glyptostrobooides</i>
<i>Location and Distribution</i>	450 mile coastal strip from Santa Lucia Mountains north to Southern Oregon; elevation 0 to 3,000 ft	250 mile range in the Sierra Nevada from Tulare Co. north to Placer Co.; elevation 5,000 to 8,000 ft	Central China; elevation 2,400 to 4,000 ft
<i>Reproduction</i>	Reproduces mostly by sprouts, sometimes seed	Reproduces only by seed	Reproduces by seed
<i>Cones</i>	Smaller than Dawn Redwood. Cones mature in one year	Cones large—up to 2.5 inches. Cones mature in two years	Cones are very small
<i>Density</i>	Often grow in pure stands of redwood	Grow in mixed stands among several other species of tree	Grows in pure stands in China
<i>Growing Season</i>	Long	Short	Long
<i>Rate of Growth</i>	Fast, if conditions are good	Very slowly	Relatively fast, especially if by a stream
<i>Average Diameter</i>	12 to 16 ft	28 to 32 ft	5.5 to 6 ft
<i>Average Height</i>	300 to 360 ft	250 to 300 ft	80 ft
<i>Maximum Height</i>	379.6 ft	325 ft	115 ft
<i>Average Mature Age</i>	800 to 1,500 years	2,000 to 3,000 years	unknown
<i>Oldest Known Age</i>	2,200 years	3,300 years	500-600 years
<i>Root System</i>	Spreads 100-150 ft; depth 6-8 ft	Spreads 100 to 150 ft; depth 6-8 ft	unknown
<i>Leaves</i>	Evergreen	Evergreen	Deciduous
<i>When "Discovered"</i>	1794	1852	1944