

Information about coast redwoods - Humboldt Redwoods State Park

Coast Redwood - Sequoia sempervirens

Redwoods have grown and prospered in many areas of Europe, Asia and North America since the warm Paleozoic Era over 160 million years ago. Changes in climate have restricted their natural range and eliminated all but three genera of redwood. Dawn Redwood, (*Metasequoia glyptostroboides*), is native to a remote area of central China. The Giant Sequoia, (*Sequoiadendron giganteum*), is native to the western slope of the southern Sierra Nevada mountain range in California. The Coast Redwood, (*Sequoia sempervirens*), is native to the Pacific Coast from southern Oregon to central California, extending not more than 50 miles inland. Humboldt Redwoods State Park is located in the heart of the coast redwood forest area in the Eel River Basin of northern California. Within the park's 53,000 acres, there are more than 17,000 acres of old-growth forest. Rockefeller Forest, close beside Bull Creek and the Eel River, is one of the largest remaining tracts of contiguous uncut coast redwood forest in the world. The entire Bull Creek watershed lies within the park. These areas provide valuable habitat for old-growth dependent plant and animal species, including anadromous fish.

Coast redwood follows the fog and grows best at less than 2,000 feet elevation in areas of heavy winter rains and moderate year round temperatures. They are the

world's tallest living things. Some of them tower above 360 feet. The name, *Sequoia sempervirens*, is Latin for "ever living" – an appropriate name for these trees since many are 600 to 1200 years old and some have lived more than 2,000 years! In fact, since coast redwood often reproduces by root collar burl sprouting, the genetic material that comprises some trees may be thousands of years old.

Statistics cannot begin to describe the beauty, grandeur and majestic serenity of these trees and the forests in which they grow best – dense groves on the alluvial flats alongside the streams of coastal northern California. The timeless beauty of these groves results at least in part from the dramatic contrast of many elements. The rough textured reddish bark of the redwood trees themselves, the delicate greenery of redwood foliage, the lush carpet of sorrel, mosses and ferns on the forest floor, sunlight filtering down over these colors and textures in ever-changing patterns all contribute to the entirety. Along with all this there is the special silence of a redwood grove – a living silence made up of many small sounds.

The tranquility of a redwood grove is even more impressive when one remembers that all of the older trees in this forest have survived repeated windstorms, fires and floods. Their quiet, stately endurance to survive is awesome. The redwoods pithy bark and lack of true resin makes them naturally fire and insect resistant. Fire can cause damage to redwoods, sometimes creating a burnt hollow termed a "goosepen" by early settlers who used to pen chickens, geese and other livestock inside. Redwoods

can grow tissue to heal fire scarring, sometimes completely covering the scar. They can also grow a buttress to compensate for a lean.

Coast redwoods do not have a single taproot. Instead, they form a shallow network of relatively small roots that extend radially, up to a hundred feet from the base. The ends of the roots are fibrous, allowing them maximum surface area to obtain moisture and nutrients. If a flood buries the roots too deeply in silt, they have the ability to grow and explore their way upward toward more oxygenated soil. In addition to root collar burl sprouting, coast redwood also reproduces from seed. Flowering occurs in December and January with cones maturing over the spring and summer. In the autumn, the cones open on the trees and, on the average, 50 to 100 tiny seeds sprinkle out. Seedlings survive best in exposed mineral soil that often occurs as a result of fire, flood and uprooted trees.

Ancient Forests

Recently, the term "old growth" has become a focal point of forest policy discussions. It should be understood, however, that the term refers not to individual trees, but to the entire forest community.

Old-growth is an imprecise term, for most wild forests are actually "all-aged" – old and young trees growing together. The crown of an old-growth redwood forest is likely to be very uneven. Some of the larger trees may

have wind-damaged tops and relatively few branches. Competition to fill the canopy is apt to be fierce, and younger trees of different species may compete to fill the canopy. This multi-layered canopy efficiently traps moisture from fog so that even during the dry season the massive trunk of an ancient redwood may contain thousands of gallons of water. This reserve of moisture and a thick, protective bark enable redwoods to survive wildfires.

In the Pacific Northwest, old-growth forests are ecosystems dominated by large conifers of an age predating European influence. The dominant trees in coastal redwood forests range from several hundred years to over two thousand years. Snags are another characteristic feature of an old-growth forest. These large, erect, dead trees may remain standing for decades, or even centuries. Large, down trees may lie on the forest floor, gradually decaying, for many hundreds of years. Only in old-growth forests are young, old, dead and down trees all present at the same time.

These forests are truly ancient. Their appearance has changed very little over time. Only a couple of trees per acre, per century need to appear to sustain the population.

In a tropical rainforest, where vegetation is so thick as to be impenetrable, it seems like the ultimate in dense forest conditions. Surprisingly, however, the greatest accumulation of biomass (living and dead organic material) ever recorded on earth is in Humboldt Redwoods

State Park, where an acre of stem mass (redwood tree trunks) alone has been estimated at 1,541 tons. When branch, leaf and root mass are added, the estimate increases to 1,800 tons per acre – seven times the density of biomass in an acre of tropical rainforest!

Like the Amazon rainforests, much, if not most of life in an ancient coniferous forest remains unknown to humans. Many kinds of insects, birds, and small mammals spend their entire lives high above the ground in the forest canopy where people spend little or no time. Woodpeckers and insects excavate snags and down trees, providing a habitat for many other species that in turn become food for large predators. While many ecological factors and interrelationships have been identified in these forests, many more remain to be discovered and understood.

The infinitely complex genetic blueprint that produced the coast redwood forest we know today remains a mystery to humans. It is a link to the past and a tool for the future. Until such time as the hidden blueprint is revealed, it would seem prudent to view each portion of this forest as a irreplaceable landscape, for there is no evidence that an ancient forest, once destroyed can ever be re-grown.

Humboldt Redwoods State Park

The Sinkyone-Lolangkok people lived in this region for thousands of years, having relatively little impact on the redwood forest. They were hunters and gatherers for whom the salmon and tan oak were staples. Redwood planks were used for housing. Redwood root and bark

fibers were used for basketry. Redwood logs were used to make canoes.

The first European Americans to pass through this immediate vicinity were on their way from the Trinity gold fields to San Francisco in 1850. Part of the group chose to follow the Eel River south from the coast. The leader of the group, L. K. Wood, was badly mauled by a grizzly bear near the present southern boundary of the park.

Throughout the world at this time there was a great respect for a Prussian scientific explorer by the name of Alexander von Humboldt. Although he never visited this area, it is in his honor that an ocean current, mountain range, bay, county and this park are named.

In 1875, Tosaldo Johnson was the first homesteader in the area. He worked 160 acres near the present-day Albee Creek Campground. During the late 1870s, his nearest neighbors were the Myers family, who had 160 acres where the town of Myers Flat now stands.

The Northwestern Pacific Railroad came to this area in 1914 and the original "Redwood Highway" was constructed in 1922. These new transportation facilities opened the entire area up for large-scale logging and tourism.

In 1917, the organizers of the Save-the-Redwoods League visited the area that is now Humboldt Redwoods State Park. They could see that the magnificent redwood

forests of this area would be lost within a few years unless something was done to save them. Their concern and foresight led to the creation of the League in 1918. In 1921, the League made its first purchase of redwoods that was to become the present state park. Since then more than 100 Memorial Groves have been established within Humboldt Redwoods State Park with the help of League funds. In 1927, an act of the state legislature called for the development of a statewide system of parks, and in the following year, the state's first state park bond act provided \$6 million in matching funds for the acquisition of state park lands. The League immediately began to accumulate private funds for redwood park acquisition purposes and, in 1930, J. D. Rockefeller, Jr., gave the League by far the largest single gift it had received up to that time - \$2 million dollars to purchase some 10,000 acres along Bull Creek. The Pacific Lumber Company owned the land and agreed to postpone logging until the League and the State of California could purchase the area.

Today, Humboldt Redwoods State Park includes 53,000 acres, most acquired little by little with the help of the Save-the-Redwoods League and its many generous donors.

The need to acquire the Bull Creek watershed became painfully obvious after hundreds of redwoods were lost during the catastrophic flooding events of 1955 and 1964. Heavy rains on steep slopes that had been previously logged and fire damaged, washed down

thousands of tons of gravel and debris. Resource managers continue to work today at restoring and rehabilitating the hillsides and stream channels to protect the spawning grounds of Chinook and Coho salmon, steelhead and lamprey, as well as the future of the entire redwood ecosystem. Humboldt Redwoods State Park and the California State Parks need your continued support. Without the foresight of dedicated people in past generations, invaluable natural areas like this would not exist today. Conversely, only if our generation is willing to continue to preserve and protect our parklands and other natural and cultural heritage sites will places like this exist for our grandchildren and future generations.

The Save-the-Redwoods League has an excellent page with more redwood information here:
http://www.savetheredwoods.org/r_res/rrcrfaq.htm