



Have You Ever Seen Something
**Thousands
of Years Old**
That's Still Alive?





Photo: Phil Schermeister

Threats to a Healthy Forest

Scientists are beginning to understand that small forest patches have more trouble surviving than larger forests.

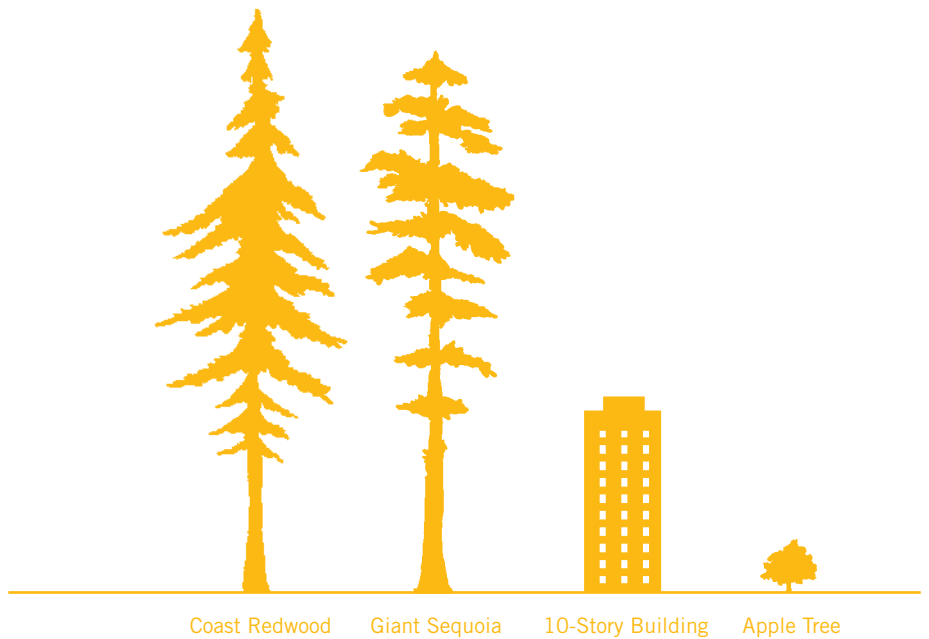
When roads, power lines and poorly planned real-estate **development** break up the forest, the complex connections within the forest community are cut off, spelling doom for the remaining forest. In fact, this **fragmentation** is one of the biggest threats to today's remaining ancient redwood forest, which is mostly made up of isolated groves in parks or forestlands.

Another major threat to the ancient redwood forest is logging. While much of the remaining ancient redwood forest is protected in parks, thousands of acres are on private land and could still be logged.

Logging and poorly planned development can even threaten nearby redwood forest areas. These threats may cause **erosion**, increased air temperatures and other environmental problems that can damage the ancient trees and other forest inhabitants.

Save the Redwoods League knows that past **climate change** was a serious danger to coast redwoods. Many scientists are concerned about warmer temperatures and changing weather patterns. They worry these changes will reduce the coastal fog on which coast redwoods depend and may decrease the current range of redwood forests. The League is leading an effort to study redwoods and climate change so that we can keep protecting these amazing forests.

Each element of the ancient forest is connected to others in ways that we may never fully understand. To save the remaining ancient redwoods, it is clear that we have to save the forest as a whole instead of just saving individual trees.



Coast redwoods are unique trees that live in parts of California and Oregon.

They are the world's tallest living things and are also among the oldest. Some coast redwoods that are alive today were living 2,000 years ago. This was during the time of the ancient Romans and before people built the great Mayan cities! Walking among these ancient trees is like stepping back in time.

Coast redwoods are relics from the past. They come from a time when the Earth's climate was warmer and wetter than it is now. Their ancestors were alive during the age of the dinosaurs and were quite common in areas throughout the Northern Hemisphere. Redwood fossils millions of years old have been found along the coasts of western Europe and Asia, and throughout the western United States and Canada.

Over millions of years, changes in Earth's climate reduced the coast redwoods' range to a narrow 450-mile strip along the Pacific Ocean from central California to southwestern Oregon. Today, this is the only place in the world that coast redwood forests grow naturally. In this belt, heavy winter rains and dense summer fog provide the trees with the year-round water they need.



Explore

Investigate the natural community in your yard, a neighborhood park or other area by bending a wire coat hanger into a rough square and laying it on the ground. Get down on your hands and knees and look closely for plants and animals within this square. How is this area like a coast redwood forest? Draw pictures of the different plants and animals you see.



The Ancient Redwood Forest

Rome wasn't built in a day, and neither was the redwood forest. It takes time—lots of time—for a redwood forest to mature. A redwood forest is more than a young forest that has grown old or tall. It is a complex community of many different plants and animals.



Photo: Howard King



Photo: © Brandon Cole



Photo: Phil Schermeister



Photo: USFWS



Photo: Phil Schermeister

The term **ancient forest** describes this type of mature community. While there is no simple definition of an ancient forest, it usually means a forest that has never been chopped down and that contains some trees that are at least 300 years old.

Ancient coast redwood forests are a mixture of different trees and shrubs that are various ages and sizes—the tallest redwood trees can be more than 320 feet tall! These forests also give a home to many animals, including frogs, snakes, lizards, fish, birds, squirrels, mice, bear and elk. The **canopy**, the uppermost level of the forest, is formed by the crowns of the biggest trees. Because its canopy is so thick, sunlight does not always reach the lower layers of the coast redwood forest.

The plants and shrubs living on the forest floor must be able to thrive in deep shade, and ancient forests have a lot of these shade-loving plants. Ancient forests also have many large, standing **snags**, or dead trees, as well as downed **nurse logs** that vary in size and are in different stages of decay. These snags and nurse logs provide food and homes for many plants and animals.

Physical characteristics such as snags and a mix of trees mean that a variety of plants and animals can live in the ancient redwood forest. It is this **biodiversity** that makes the ancient redwood forest truly unique.

Explore



A forest community is usually defined by the dominant tree species. Visit a native forest or plant community in your area. What are the most common plants you see in this community? What evidence of animals can you find? How diverse would you say this community is? How does it compare to the ancient redwood forest?

If possible, seek out a park ranger and find the answers to these questions: What are threats to this community? What is being done to protect it? What can you do to help?



Photo: Phil Schermeister



Get Active



Learn More

Visit the Save the Redwoods League Web site at **SaveTheRedwoods.org**. Find books about redwood trees or ancient forests at a local library.



Inspire Others

Check out organizations that work on forest issues and join one that you like. Send your redwood art, poetry, photos or memories to Save the Redwoods League, and we might post them on our Web site!



Visit a Park

Take a trip to a park or nature preserve in your area to see what plants and animals are common there. Ask a park employee what you can do to help protect it.



Reduce, Reuse, Recycle

Everything we use comes from nature. You can help trees and the environment by using fewer natural resources and recycling what you do use.



Plant a Native Tree

Find out what kinds of trees are native to your area and plant one. If you can't plant one yourself, find a local group that will plant one on your behalf.

Saving the Coast Redwood Forest

The native peoples of California lived among the coast redwoods for more than 8,000 years.

They did not cut down redwoods, but used fallen trees to make houses and hollowed-out logs for canoes.

There were 2 million acres of ancient coast redwoods in California and Oregon before the 1849 Gold Rush. Since then, redwoods have been logged for lumber and to make way for roads, houses and other buildings. At first, there were so many trees that people did not worry about cutting them down. Today less than 5 percent of the original ancient forest remains.

Save the Redwoods League was founded in 1918 to protect these awe-inspiring trees. Over the years, the League has purchased many thousands of acres of forestland and has helped to develop dozens of state and national parks and reserves. Much work remains to ensure that future generations can enjoy these magnificent forests. Thousands of acres of ancient redwood forest remain on private land and could still be logged for lumber or for real-estate development.

About Save the Redwoods League

Since 1918, Save the Redwoods League has protected redwood forests so that people can be inspired by these precious natural wonders—now and in the future. The League and its partners help people of all ages experience these majestic trees through the forestlands we have helped protect and restore, the many education programs we sponsor and our Web site.



114 Sansome Street, Suite 1200
San Francisco, CA 94104
(415) 362-2352
SaveTheRedwoods.org/Education



Save the Redwoods League printed this publication with soy inks on chlorine-free, 100 percent postconsumer recycled paper.

If you must print this electronic version, please help conserve our forests by reusing paper or choosing recycled, chlorine-free paper made from postconsumer waste.