

# What's Happening

IN CALIFORNIA ?

BY LAWRENCE GABLE

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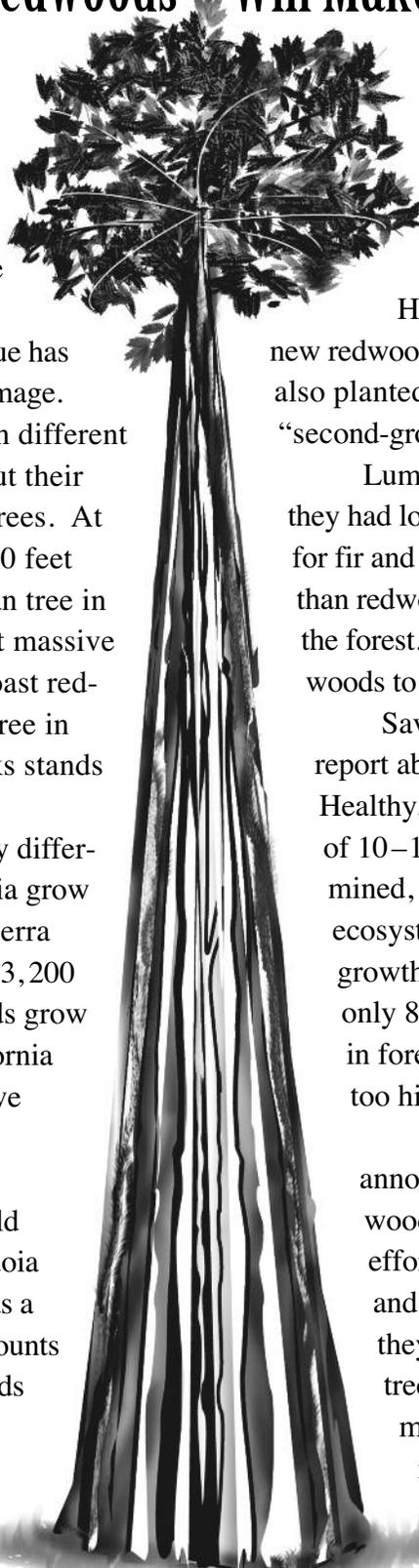
## Thinning the Redwoods Will Make Them Healthy

California is home to the two largest tree species in the world. The giant sequoia and coast redwoods are symbols of California's natural beauty. However, logging from the past is hurting the redwoods today. Now the Save the Redwoods League has a plan for undoing some of that damage.

Each species is the largest in different ways. Giant sequoia grow tall, but their mass sets them apart from other trees. At ground level their trunks can be 40 feet in diameter. The General Sherman tree in Sequoia National Park is the most massive single-stem tree on Earth. The coast redwood is the tallest species. One tree in Redwood National and State Parks stands 380.3 feet high.

The trees grow in completely different parts of the state. Giant sequoia grow along the western slopes of the Sierra Nevada. They can live more than 3,200 years. In contrast to that, redwoods grow along the coast from central California to southern Oregon. Redwoods live more than 2,500 years.

California's population grew tremendously at the time of the Gold Rush in the mid-1800s. Giant sequoia and coast redwoods both suffered as a result. The settlers logged vast amounts of land. Today only about two-thirds of the original "old-growth" giant sequoia are still standing. Even worse, about 95 percent of the old-growth redwoods are gone.



There were efforts in the 20th century to save the redwoods. The Save the Redwoods League bought large pieces of land, and California established state parks to preserve redwoods.

However, logging continued. Some new redwoods grew up, and lumber companies also planted new ones. These are called "second-growth" trees.

Lumber companies reseeded where they had logged. However, they used seeds for fir and oak trees that grow much faster than redwoods. Those trees have changed the forest. They force struggling, young redwoods to compete for sunlight and water.

Save the Redwoods has issued a new report about giant sequoias and redwoods. Healthy, mature redwoods have a diameter of 10–15 feet. The organization has determined, though, that half of the redwood ecosystem is made of young, second-growth trees. Their average diameter is only 8 inches. They are trying to grow in forests whose density of trees is much too high.

On April 27 Save the Redwoods announced a new plan called "Redwoods Rising." It is a cooperative effort with the National Park Service and California State Parks. Together they will restore habitat and thin the trees in redwood forests. In these more natural conditions young redwoods will grow into the beautiful giants that Californians treasure.

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## BIOGRAPHY

### ANDREW SLACK

#### FOREST FELLOW, SAVE THE REDWOODS LEAGUE

Andrew Slack grew up in Boulder, Colorado. As a boy he spent a lot of time exploring in the forest. Those were pine forests, and when he moved to California he became interested in redwoods too. As a Forest Fellow for Save the Redwoods, now he is working on “Redwoods Rising” to make the forests stronger.

Andrew’s parents taught him about conservation and ecology. For as long as he can remember, he has known about protecting the environment. However, for a long time that was strictly a personal interest. Things like pinecones and coyotes were important to him. Activism came later.

As a teenager Andrew and three others formed a rock band. He played the bass guitar, and during the summer they practiced at least 30 hours a week. In school he really liked History. In general, though, school was hard because of his struggles with reading.

It was a big disappointment when the University of Colorado did not admit Andrew. He studied for a year in Oregon, but then returned to Colorado. He worked full time at a bakery and took classes at a community college. He did well, and the University of Colorado admitted him.

In college he spent a semester in Botswana. There his interest in studying the environment took hold. Upon his return he dedicated himself to the

forests of the American West. He learned about issues like fires, beetles and tree density. After four years there he graduated with degrees in Environmental Studies and History. He is especially proud that he graduated with honors despite his reading problems.

For three years he worked for a county fire department where his father had once been fire chief. Then in 2014 Mr. Slack moved to Northern California for graduate school at Humboldt State University. Two years later he earned a degree in Forestry and Wildlife Sciences. During that time he made his first contact with Save the Redwoods, and in 2016 he

began working as a Forest Fellow. In this two-year position he is coordinating efforts by the League, national parks and state parks.

Mr. Slack could work in his office nearly all of the time. However, sometimes he just finds a reason to get out into the redwoods too. His favorite spot is Prairie Creek Redwood State Park, where every trail is beautiful.

“Redwoods Rising” is a long, complicated project. It will take years to remove logging roads, thin out forests and repair animal habitats. However, Andrew Slack is optimistic. He believes that the project not only will help second-growth redwood forests, but also will become a model for other forests around the U.S.



*“I feel like I finally have the job that I’ve spent years preparing for”*

# Background Information

Ancient coastal redwood forests used to cover two million acres along California's coast.

There are only seven locations in the coast redwood region where blocks of more than 1,000 acres of old-growth forest remain.

Thick bark and dense wood make redwoods resistant to disease and fire.

The Save the Redwoods League was founded in 1918. It has preserved more than 214,000 acres of redwood forest since then. Its new State of Redwoods Conservation Report gives a look at the health of coast redwood and giant sequoia forests.

"Redwoods Rising" is a \$5 million project over about 10 years. It will result in the thinning of 10,000 acres of redwoods, firs, oaks and other trees. Work will begin at Redwood National Park and Del Norte Coast Redwoods State Park near the Oregon border. After that it will focus on forests in Jedediah Smith and Prairie Creek Redwoods state parks.

The density of trees in second-growth forests can be more than a thousand trees per acre. That is different from old-growth forests, which have more space. The breaks and variations in their canopies allow light to filter through to undergrowth.

Seeding of clear-cut old-growth forests was done from helicopters and airplanes.

Logging roads put stress on the coast redwood forest. They disrupt natural water flow through watersheds and send sediments into streams.

The giant sequoia is the world's fifth-tallest species. It reaches heights up to 317 feet. A single giant sequoia can weigh more than one million pounds.

The tallest known living tree on Earth is the coast redwood known as Hyperion tree.

Old-growth redwood and giant sequoia forests help the environment by storing huge amounts of carbon.

Nearly all redwood lumber today is from second- and third-growth trees.

## Topics for Discussion and Writing

*Pre-reading:*

- Name a couple of things that people think about regarding California's natural beauty.

*Comprehension:*

- Why are the redwoods in need of thinning?

*Beyond the Text:*

- Identify the state park or national park closest to where you live, and describe what it offers visitors.
- Describe how forests provide habitat for animals.
- Use the library or Internet to find information about the logging of redwood trees in the past.

## Vocabulary

*Article-specific:* species; logging; Gold Rush; lumber; to reseed; ecosystem; to restore

*High-use:* symbol; mass; diameter; slope; contrast; vast; to establish; to preserve; to compete; to issue; to determine; density; habitat

## Sources

KQED News "Forum" April 19, 2018 [www.kqed.org](http://www.kqed.org)

*San Jose Mercury News* April 7, 2018

Save the Redwoods League

[www.savetheredwoods.org](http://www.savetheredwoods.org)

National Park Service [www.nps.gov](http://www.nps.gov)

Environmental Protection Information Center

November 12, 2015 [www.wildcalifornia.org](http://www.wildcalifornia.org)

## Common Core Curricular Standards

### Reading — Grades 5–12

- Quote accurately from text
- Cite textual evidence
- Draw inferences
- Determine central ideas
- Analyze structure of text
- Interpret words and phrases