



GIANT SEQUOIA
LANDS COALITION

Contact:

Robin Carr, Landis Communications Inc.
Phone: (415) 766-0927 |
Email: redwoods@landispr.com

Note to media: Images of GSLC projects and places are available for download [here](#).

New Scientific Study Assesses State of Giant Sequoias, Reveals 18% Mortality of Mature Trees Due to Severe Wildfires

*Only 26% of giant sequoia range shows high resistance to extreme wildfires
Roughly 13% of the range at risk of local extinction*

ARNOLD, Calif. (April 3, 2026) — A new scientific study from the [Giant Sequoia Lands Coalition](#) (GSLC) reveals the current state of California's giant sequoia range and quantifies the alarming extent of damage caused by extreme wildfires over the last decade. More than 17% of all mature giant sequoias have been killed by wildfire since 2015, while less than 1% perished in the 30 prior years. Most of the losses since 2015 occurred during the megafires of 2020 and 2021.

[“The State of the Giant Sequoias: Losses, Risks and Opportunities”](#) study, published in the journal *Fire Ecology* on March 27, 2026, also highlights that most of the world's remaining giant sequoia groves do not currently meet a high level of resilience to extreme wildfire. With shifting climates increasing wildfire risk and severity, more work is needed to protect these groves.

Due to a combination of forest treatments and natural-intensity wildfires that have occurred throughout the sequoia range since 1995, scientists determined that only 26% of existing sequoia grove area has high resistance to extreme wildfire. Other groves display moderate resistance (38%), low resistance (2%) or have no resistance at all (16%). The remaining 18% of grove area has been lost to high intensity fires that have also inhibited postfire regeneration in some locations; while this percentage tracks total grove area lost since 1984, 17% of this 18% has been lost in just over the past decade.

“While the results of our study are sobering, they position us to direct our attention toward the groves most in need of restoration,” said **Kristen Shive, Ph.D.**, assistant professor of cooperative extension at UC Berkeley's Department of Environmental Science, Policy and Management, who led the study on behalf of GSLC. “Megafires have claimed so many mature sequoias in recent years, and because sequoias need fire to regenerate, we once thought this would be a silver lining. We now know that, in some cases, fires were so severe that even this fire-loving species isn't regenerating. With about 13% of the range at some

risk of local extinction, the Coalition’s work to make sequoia groves more resilient to extreme wildfires has never been more important. We will continue to use science to guide our efforts to protect these iconic trees from vanishing.”

Since 2022, GSLC partners have implemented ongoing restoration in 44 out of the remaining 94 sequoia groves through resilience treatments, prescribed burns and the planting of native seedlings. These restoration activities help shield these ancient groves from the impact of extreme wildfires and bolster the sequoia range’s total health. In 2025 alone, the Coalition treated 4,508 acres across 25 groves.

Giant sequoias are the world’s most massive trees and can live for thousands of years. These ancient trees store considerable amounts of carbon and provide essential habitat for wildlife across approximately 25,000 acres along the western slopes of California’s Sierra Nevada Mountains.

Shive added, “We are also encouraged to confirm that while 82% of the range burned in the past decade—compared to only 24% between 1910-2014—most of the recent fires burned with lower severity effects. In low severity areas, we have surviving sequoias and reduced fuels, creating opportunities for the Coalition to amplify these areas of beneficial wildfire with active management to increase giant sequoia resilience in a time of rapid change.”

Other co-authors of the study include scientists from the UC Berkeley Department of Environmental Science, Policy and Management (Brianna Baker), US Geological Survey (David Soderberg, Ph.D., Adrian J. Das, Ph.D., Nathan L. Stephenson, Ph.D.), National Park Service/Yosemite National Park (Linnea J. Hardlund), USDA Forest Service/Pacific Southwest Region Ecology Program (Marc D. Meyer, Ph.D.) and University of Nevada/Reno (P. Bryant Nagelson, Sarah M. Bisbing, Ph.D.).

Protecting the Most Vulnerable Groves

In response to the exceptionally severe wildfire impacts in 2020 and 2021, federal, state, Tribal and nonprofit managers of giant sequoias formed the Giant Sequoia Lands Coalition to coordinate restoration and recovery work across the range.

The Coalition is prioritizing restoration activities in the most vulnerable sequoia groves identified in the report. Restoration activities include the expansion of cultural and prescribed burns to boost wildfire resilience, continued active resilience treatments and ongoing monitoring of seedling growth in areas struggling with post-fire natural regeneration.

The 2025-26 winter was the warmest on record in the Sierra region, leaving the winter snowpack—which giant sequoias rely on for most of their water—far below average. With 2026 expected to be exceptionally warm, chances are high that dry conditions will amplify the severity of potential wildfires.

“Climate shifts are rapidly altering the severity of wildfires in the sequoia range. This study helps guide our forest management to reduce the impact extreme wildfires can have on these groves,” said **Paul Ringgold**, chief program officer at Save the Redwoods League, an affiliate member organization of GSLC. “It’s encouraging to see that most areas burned in recent years had lower degrees of impact thanks to the treatments performed by the Coalition. Increased active management with our partners will help promote giant sequoia resilience as megafires continue to be a growing concern.”

According to the newly released [2025 GSLC Progress Report](#) (see press release [here](#)), since 2022, the Coalition has:

- Treated 23,251 acres across 44 groves
- Planted 682,476 native trees
- Conducted 4,643 acres of broadcast burning
- Completed 3,669 acres of pile burning
- Expanded treatments to include 11,454 acres of buffer zones around groves

* * *

About the Giant Sequoia Lands Coalition

The Giant Sequoia Lands Coalition (GSLC) is a landscape-scale, multi-partner collaboration dedicated to the conservation and stewardship of the remaining giant sequoia grove ecosystems. The Coalition is composed of federal, tribal, state, and local agencies and organizations that directly manage giant sequoia groves in public, tribal, or private nonprofit ownership, known as GSLC Members. In addition, GSLC’s Affiliate Members include select federal and state conservation agencies, nongovernmental organization conservation groups, and academic research partners with a shared commitment to protect giant sequoias and their ecosystems from emerging threats associated with climate change and the extended absence of natural, low-severity wildfire processes on the landscape. Learn more at giantsequoias.org.

###