

Save-the-Redwoods League

Spring Bulletin 2001

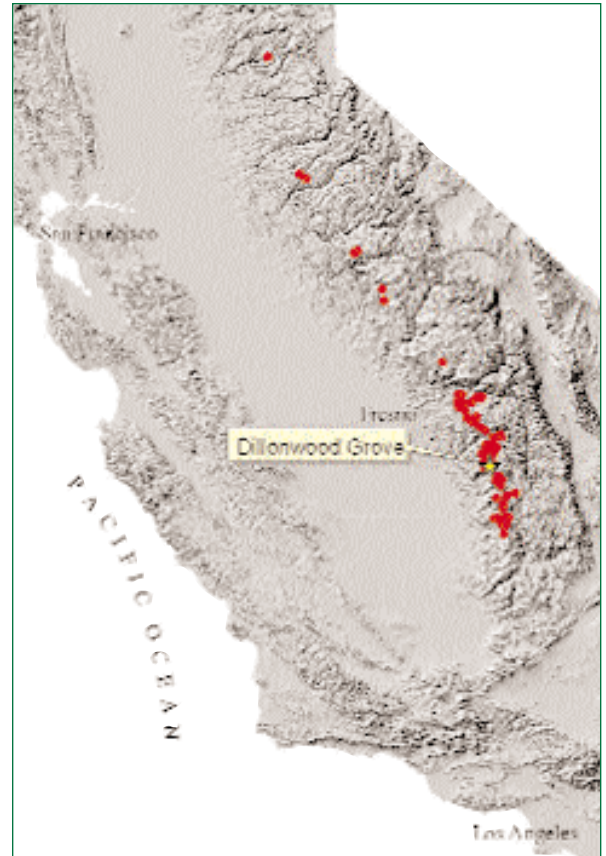


PHOTO BY LARRY ULRICH

Dillonwood Update!

After months of advocacy by Save-the-Redwoods League, moments before adjourning the last session of the 106th Congress, the Senate and the House of Representatives voted to expand the boundary of Sequoia National Park to include Dillonwood Grove, approving bills introduced by Congressman George Radanovich (R-CA) and Senator Barbara Boxer (D-CA). The League appreciates the *pro bono* services of member and Washington lobbyist Don Massey who assisted this effort.

Dillonwood's 1,540 acres comprise 70% of the last remaining giant sequoia groves in private ownership. The headwaters of the North Fork of the Tule River flow through the rugged granite reaches where trees more than 2000 years old tower above a healthy multi-aged second growth giant sequoia forest, unlike any area currently in the National Park. (See *League Bulletin Fall 2000*).



California's 67 giant sequoia groves

Thank you!



———— \$10.3 million

———— \$9.3 million

“This is a significant opportunity to protect this historic grove of redwoods. The Goldman Fund is glad to be part of this partnership between the public and private sectors. In years to come, our grandchildren and great-grandchildren will be grateful for the preservation of these Giant Sequoias.”

— **Richard N. Goldman**
President of the Richard and Rhoda Goldman Fund

In late fall, Senator Dianne Feinstein (D-CA) spearheaded the successful campaign to secure a federal appropriation of \$5 million towards Dillonwood's purchase price of \$10.3 million. Save-the-Redwoods League must exercise the option to purchase the Dillonwood Grove by October 2001.

Thanks to over 6,500 League members, the David and Lucile Packard Foundation and The Richard and Rhoda Goldman Fund, over \$9.3 million has been raised!

The commitment of so many members is pivotal in engaging government and foundation support for Dillonwood. In March, an anonymous donor offered a \$1.5 million challenge to complete the project. The League must raise the remaining \$1 million to secure this gift and preserve Dillonwood Grove forever.

Are You Online?

Send us your email address so we can make current news and information available to you!
(bulletin@savetheredwoods.org)

A History of Save-the-Redwoods League and the Giant Sequoia

In 1931, thirteen years after its founding, Save-the-Redwoods League joined with the Calaveras Grove Association and the State Park Commission to purchase a stand of ancient giant sequoias which became the North Grove of Calaveras State Park. This purchase built on the protection for the giant sequoia initiated in 1864 when President Lincoln gave the giant sequoia trees in the Yosemite area to the State of California for public use and recreation. The giant sequoia's conservation was advanced significantly in 1890 with the creation of Sequoia National Park, the country's second national park.

The magnificent coast redwoods did not enjoy such early protection. Concern for rapidly advancing destruction of the primeval coast redwood forest led to the creation of Save-the-Redwoods League in 1918, and remains the primary focus of the League's work.

The League's next significant involvement with the giant sequoia was the purchase of the South Grove at Calaveras in 1954. The League contributed \$1,240,000, the California Department of Parks and Recreation contributed \$1,622,000, and the Calaveras Grove Association contributed \$72,600 to buy the South Grove from a lumber company. The rugged, pristine South Grove was promptly added to the Calaveras Big Trees State Park.

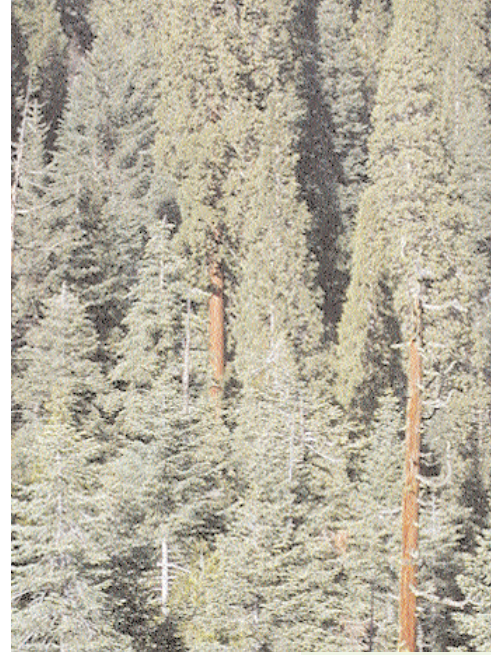
In 1986, the League purchased 422 privately-owned acres near the Mineral King Valley deep within Sequoia National Park for \$2,200,000 to avoid sale to a private buyer, who might have used the land in conflict with National Park policy. The "Kaweah Han" stand included more than 290 giant sequoia trees larger than six feet and some as large as 20 feet in diameter.

In 1999, the owners of the Dillonwood Grove offered to sell their 1,540 acres to the League when the Superintendent of Sequoia National Park expressed great interest in the

grove's addition to the Park but had no funds necessary for the purchase.

Passage of the legislation to expand the Park's boundary to include Dillonwood and securing funding for its purchase has been a major focus of the League's work for the last year and a half.

Dillonwood is biologically part of the Park's Garfield Grove. Together they form one of the five largest of the 67 giant sequoia groves. When added to the National Park, the Dillonwood-Garfield Grove will be managed by a single owner for its permanent protection, safeguarding the bear, mountain lion, deer, spotted owl, pileated woodpecker and goshawk that live there, and assuring its enjoyment by the people.



\$1.5 Million Challenge Gift for Dillonwood

We are thrilled to announce that a \$1.5 million Challenge Gift has been made to Dillonwood Grove. A very generous benefactor has stepped forward to help spur the final private contributions needed to complete the purchase of this forest.

Thanks to this Challenge Gift, your gift to Dillonwood today will have twice the impact. We only have \$1 million left to go!

***Please help
us meet this challenge.***

A Tree Named Luna

In December 1997, in Humboldt County, California, twenty-three year old Julia Butterfly Hill ascended an old growth coast redwood to protest Pacific Lumber Company's logging of our last remaining original forests. She vowed that she would come down only when she could be sure the old growth tree would not be harvested.

After Julia lived in Luna for more than two years, several nonprofit groups negotiated a settlement in which Pacific Lumber Company received \$50,000 to preserve Luna in a 400-foot circle of forest, in perpetuity.

VANDALISM

Just after Thanksgiving, 2000, I received a late night call from the Executive Director of Save-the-Redwoods League. I was told Luna had been slashed with a chainsaw. The next day, I met in Humboldt County with representatives of Pacific Lumber Company, the California Department of Forestry, and local

chainsaw's 36" bar into Luna's heart, severing over 60 percent of her eleven-foot wide cross-section. Even in a ten mile per hour wind, Luna was rocking slightly at the saw cut. A fierce winter storm was due that night, and could very well have toppled Luna.

The consulting team devised a plan to install plate-steel braces above and below the saw cut, anchored with lag screws, and bolted together like steel stitches. Pacific Lumber Company assigned machinists to work urgent overtime to fabricate five pairs of welded braces.

Starting after sunset, the team scrambled to install the steel braces, completing the task just fifteen minutes before a torrential storm broke at midnight. Luna took the storm's passion and stood her ground!

Arborists, foresters, horticulturists, and other experts have been consulted on the feasibility and advisability of wound grafting. However, before Luna could ever be grafted, she needed further stabilization to withstand record storms. Four heavy cables were installed at mid-height (one hundred feet). Three were anchored with turnbuckles to the base of nearby redwoods, and a fourth was affixed to a soil anchor set twenty-seven feet into the earth.

PROGNOSIS

Luna will survive. Coast redwoods are remarkably resilient, one of the oldest and most successful trees in the fossil record. They are always "overbuilt," in that their vascular system can be destroyed to some extent, and the remainder will sustain life. Water and dissolved minerals will continue to be drawn up from the earth, and the needled crown will continue to photosynthesize sugars to power Luna's metabolism.

We cannot know how much of Luna's root system has been irretrievably severed from a

foresters to evaluate damages and brainstorm how best to stabilize Luna.

We hiked with journalists to the site to measure and graph the injuries. Luna's uphill side had a charred cavity from centuries of intermittent forest fires. From within the cavity, the slasher had plunged a

Many League members have asked if saving one tree was worth the two years that Julia Butterfly spent physically occupying the old growth redwood that is now known as Luna, a conservation strategy very different from the League's approach. Julia's courage and persistence brought worldwide attention to the continued logging of the last 4% of the old growth redwoods and inspired admiration for the difference one person can make. Since her return to the ground, Julia has spent her time challenging audiences across the country and internationally to address forestry issues in their own regions and countries, as well as describing the threats to California's redwoods.

source of carbohydrates. Healthy root grafts from Luna and adjacent trees may help to sustain disconnected roots.

A substantial part of Luna's root system will atrophy, and partial dieback can be expected in her crown. As humidity and rainfall decrease, and temperatures increase, the evaporation rate of water from the needles will almost certainly exceed the capacity of the root structure to draw adequate moisture. The tree will leave productive boughs intact, and divert moisture from less efficient parts of the crown. Needles will dry and fall from some green boughs, yielding twisted wooden crags that are devoid of needles, but not of character. Luna will enter a new phase of life.



— Denis Yniguez, President, American Society for Consulting Arborists, and Registered Consulting Arborist, Berkeley, CA

Photo by Shaun Walker/OtterMedia

With her recent gift for the purchase of Dillonwood Grove, League member Josephine DeWitt Rhodehamel sent this story:

We must save these old growth giants!

They should be the most honored and revered of all living beings and we the most fortunate for the privilege of sharing the planet with those that remain.

I remember a very special giant sequoia I saw about forty years ago when my husband and I were driving through Balch Park in southern Sequoia National Park. This lone giant had been sawn completely through but had not fallen. It had refused to bow to the wood cutter, but stood tall and defiant, though lifeless, for many years. It made me think of a doomed character in a Greek tragedy.

I have never forgotten its silent reproach of man's destruction of our great forests. My check is in memory of that brave tree. I wish it could be more.

— League member Josephine DeWitt Rhodehamel

Mapping the Redwoods

Maps play a central role in the League's continuing mission to protect the ancient redwood forest. In the early years, these were hand-drawn illustrations depicting ongoing projects. The League's Geographic Information System (GIS) program started in 1997 with a grant from the Conservation Technology Support Program. We are now using GIS techniques to ensure our work continues to reflect priorities supported by the best available science, applied with the best tools. The League's use of GIS in support of its Master Plan for the Redwoods was featured on the cover of a recent issue of GEOWorld — a leading spatial technologies publication.

What Is a Redwood?

When most people write or say “redwood,” they probably are referring to the coast redwood, whose scientific name is *Sequoia sempervirens*. This “original redwood” was first observed by European explorers near the central California coast in 1769. It takes its name from its reddish bark and the reddish hue of its heartwood. The coast redwood has been the focus of most activities of Save-the-Redwoods League.

Giant sequoia, sometimes called “Sierra redwood,” was not known to the scientific world until specimens and seeds were collected from North Grove, Calaveras, in 1852. It is similar to the coast redwood in its bark, cones, and wood; both live to ages exceeding 2,000 years; and both are the tallest and have the

greatest diameter of any of the species that grow with them. Calling the giant sequoia a redwood made sense both practically and scientifically.

After nearly a century, however, the giant sequoia was reclassified into its own genus, *Sequoiadendron giganteum*. This reclassification was based on some details of its embryo development, but these two “redwoods” differ in other respects as well. For example, coast redwood trees

have 66 large chromosomes and from 0 to 6 smaller ones, while giant sequoias have a consistent 22 large chromosomes. The seeds of the coast redwood ripen in about 9 months from fertilization, and the cones all open and shed the seeds at that time. Giant sequoia seeds take about 2 years to ripen, and the cones subsequently remain closed on the tree, often for decades, until opened by squirrels, cone insects, or the heat of a forest fire. Save-the-Redwoods League has been active in preserving and protecting several of the 70-plus native giant sequoia groves.

During World War II, a third “redwood” species was discovered, first as many fossils, which were named *Metasequoia glyptostroboides*. Shortly thereafter, a very small population of trees found in a remote valley in China proved to be living *Metasequoia*. These trees became known popularly as “dawn redwoods” after evaluation by independent scientific expeditions led by Save-the-Redwoods League and Harvard in the late 1940s. But is *Metasequoia* really a redwood? Its wood is similar to redwood and it stands much taller than its neighboring species where it exists as old growth in China. However, the *Metasequoia*’s needles and cone-scales are opposite each other, rather than in the spiral arrangement of redwood and giant sequoia leaves and cones. And, perhaps because it once lived above the Arctic Circle in sunless winters, it sheds all of its green foliage in the fall. The League is sponsoring research to better understand the *Metasequoia*’s relationship to other redwoods and recently sponsored a return expedition to the native population of dawn redwoods in China. Although now propagated widely, the very small native population and its associated ecosystem are certainly at great risk.

— League Councillor Dr. Bill Libby



Dillonwood Grove, February 2001

Focus on the Giant Sequoia

The giant sequoia is the world's most massive tree. Trees 290 feet tall with trunks 36 feet base diameter have been found. Giant sequoia are also extremely long-lived. The oldest are believed to be from 2,200 to 3,300 years old. Native giant sequoia grow only on the western slopes of California's Sierra Nevada Mountains, between 4,500 and 8,400 feet, in 67 isolated groves. The largest giant sequoia in the world, the General Sherman, is located in Sequoia National Park. There is enough wood in this one tree to build 40 five-room houses. Amazingly, the lower branches of the General Sherman are larger than any individual tree east of the Mississippi River!

For such a tall tree, giant sequoia roots are very shallow, often less than ten feet deep. They extend widely from the mighty trunk providing stability against windstorms. The combination of high tannin and low resin content in the thick, fibrous bark make the trees highly resistant to forest fires. When fire does breach the bark, it can create "goose pens" — hollows that provide habitat for many animals. Rarely are they detrimental to the tree's health.

Fire is essential to the regeneration of the giant sequoia. The cones of the giant sequoia are surprisingly small, obtaining a maximum length of only 3.5 inches. They take more than 2 years to mature and may remain on the

tree for decades. A single tree develops on average 1,500 cones per year and when mature may contain up to 40,000 cones at any one time. Over the years, fire suppression has curtailed regeneration of the giant sequoia. At the same time, fire suppression has encouraged the growth of understory species. Fire is slowly being reintroduced into the giant sequoia groves, allowing a new generation of giant sequoia trees to become established.



Dillonwood co-owner Dave Reed and a friend enjoy one of the many spectacular views at the Grove.

Photo by
Ernie Braun

Create a Redwood Legacy

Many of our supporters have included Save-the-Redwoods League in their estate plans. Bequests provide important future support that enables the League to purchase and protect redwood land. We also have ways to create a memorial for a loved one. If you would like more

information about including the League in your will, a living trust, or our memorial grove program, please contact our office toll free at (888) 836-0005 or visit: SaveTheRedwoods.org. This is a great way to protect our ancient forests, water and wildlife for the enjoyment of future generations.

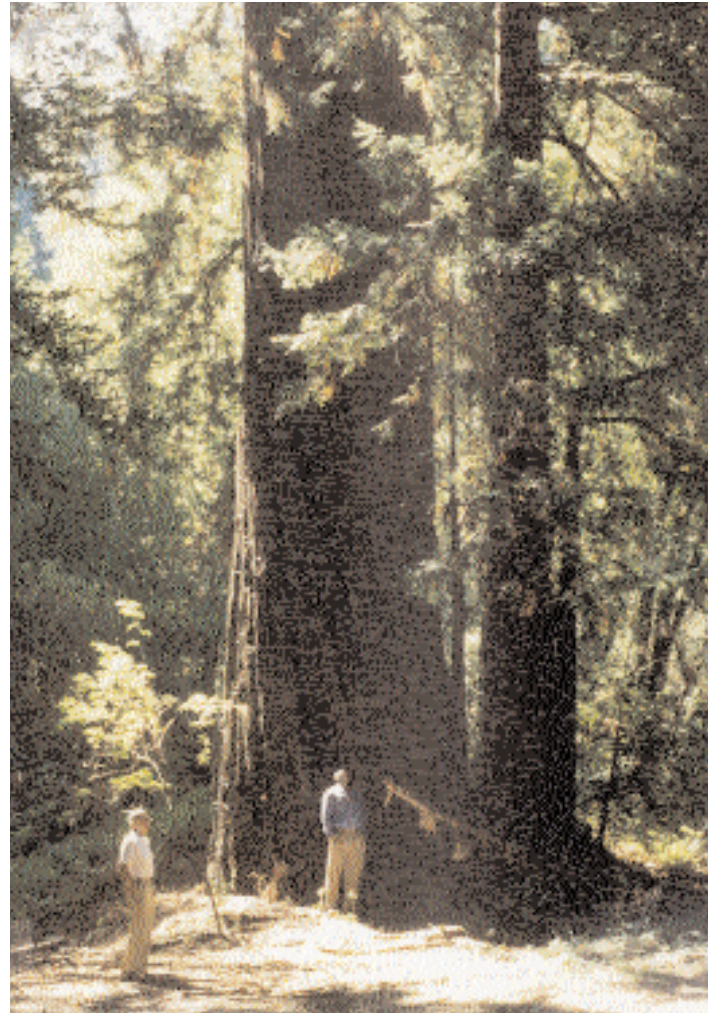
League Donates Redwood Forest

League members and county officials gathered on March 30th to celebrate the League's donation of 410 acres to the County of Santa Cruz. A majestic stand of old growth redwoods borders Kings Creek as it flows through the property. The League purchased the property, located in Boulder Creek on Kings Creek Road, in 1994 for \$2.4 million from the University of California to save it from being logged.

Santa Cruz County has opened the trails of its newest and largest county park for the public's use. In the future, the park may be used as the site for outdoor education facilities for students county-wide, and as a living laboratory for the local high school's watershed academy.

Speaker Pro Tem of the California State Assembly Fred Keeley (D-Boulder Creek) praised the gift. "Save-the-Redwoods League has taken a bold step to further protect this excellent piece of property in perpetuity. I am very excited to hear that the County will be the final recipient of the Miller property, and I congratulate the League for their leadership almost a decade ago to protect the property from timber operations," Keeley said. As a County supervisor in 1994, Keeley had spearheaded the campaign urging the University Regents to spare the property and sell it for conservation and public ownership.

Jeff Almquist (5th District Santa Cruz County Supervisor) accepted the gift of the property, saying, "We are incredibly grateful for this generous donation to the County."



League members enjoy the shade of an old growth redwood at the new county park.



Save-the-Redwoods League

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Seeking Grant Applications

The League is pleased to announce the creation of our Redwood Education Grants program. Educators in both the formal and non-formal sectors who work with K-12 students are encouraged to submit grant proposals by July 15. A total of \$25,000 will be available in the 2001-2002 academic year. Application guidelines and granting criteria are available on the League's website. If you are a teacher, or if you know someone who works with children, please visit our website at SaveTheRedwoods.org. Follow the "Program Areas" link to the paragraph entitled "Education and Research." Within this paragraph is a link called "Education Grants."