



Save the Redwoods League

Spring Bulletin 2007

*Hyperion, the world's tallest living thing
photo: Phil Schermeister*

Better from the Executive Director

When, in December, the Board of Directors asked me to become the sixth Executive Director of Save-the-Redwoods League, my first thought of “Oh Blimey!” was rapidly replaced by a sense of honor and awe at being asked to lead this venerable organization – particularly following the outstanding leadership of Kate Anderton.

In the nine years that I have worked at the League – most recently as Conservation and Education Director – I have learned great respect for what can be achieved by a succession of dedicated individuals that maintains their focus for almost 90 years. It is a privilege and a pleasure to be part of that mission.

Growing up in England, much of my childhood was spent outdoors. The hedgerow between our house and our neighbors was my climbing gym, and the coppiced woodland at the foot of the garden was my personal wild forest where friends and I would play for hours until summoned home. Before I left for university, my family moved to the edge of Ashdown Forest – a large area of open space originally reserved in 1296 as a game reserve for deer – and now one of southern England’s precious green spaces. It is not a forest in the typical sense but rather a heather and bracken-covered land with pockets of deciduous woodland. Its medieval boundary is marked with ancient trees and one such tree was adjacent to our garden — a massive beech I could climb and sit amidst spreading limbs in a green and gold room dappled with sun.

I was reminded of climbing this ancient beech tree when, in September, I watched Steve Sillett and his fellow scientists ascend Hyperion – the world’s tallest tree – to determine its exact height and to record its dimensions for scientific study. This new discovery in Redwood National Park has been reported around the world, re-kindling interest in the redwood forest from New York to New Zealand to New Delhi. As you will read in this Bulletin, Hyperion was found in a small fragment of ancient forest, less than 200 feet from a clear-cut edge.



photo: Paolo Vesica

Executive Director Ruskin Hartley.

The League continues its commitment to protecting the ancient forest through acquiring land and expanding our parks. In this Bulletin you’ll read about 20 acres of ancient redwoods, formerly owned by Pacific Lumber Company, that were recently protected in Humboldt Redwoods State Park because of Save-the-Redwoods’ work.

As Executive Director, I intend to continue this important legacy, as well as explore new and innovative methods of protecting and restoring the redwood forest.

The Bulletin describes a project in Arcata where Save-the-Redwoods League worked with a diverse group of partners to support the community’s effort to protect their local forest from aggressive logging and development. The land will be managed as a community-owned working forest – producing a flow of timber income to sustain itself, while providing wildlife habitat and recreation. One-third of this forest will be a reserve, managed toward restoring its old-forest characteristics.

It is exciting to be part of this enterprise and to be able to employ an increasingly broad range of tools and conservation partners to ensure the redwood forest flourishes for generations to come.

You, our members, accompany us on every step of this quest and make it possible. Thank you for your support and commitment.

A handwritten signature in blue ink that reads "Ruskin K. Hartley". The signature is stylized and fluid, with a long horizontal line extending from the end of the name.

Ruskin K. Hartley

Discovery: The Tallest Living Beings on Earth

BY MATT WILSON

In late August, Save-the-Redwoods League sent me from San Francisco to Jedediah Smith State Park. After seven hours of driving, I was anxious to cast a fly in the stream nearby and shake the strain of a long drive. Fly rod in hand, I fumbled over the rocks to a deeper pool. I unfastened the fly, brought the rod back, and let the fly touch down on the surface of the pool. I watched it float slowly.



*Canopy biologist, Jim Sprickler, preparing for his ascent of Hyperion.
photo: Phil Schermeister*

Then I heard something—a creaking sound, like a house shifting. Startled, I looked behind me. The wind blew. The redwood branches lifted and lowered and the trees swayed back and forth. All of a sudden I became aware of a group of giant redwood trees behind me. They were flexing their trunks in the wind. I laughed at myself for being skittish. The sound of the trees grew louder as the wind picked up. I thought of a passage in an article about a tree named Adventure. The article was written by Richard Preston about climbing redwoods with Humboldt State University biologist Dr. Steve Sillett:

The tree's branches and needles began to give off a hissing sound. "Do you feel that?" he said. "We're moving."... Sillett watched the motion of the redwoods in silence for a little while. "Despite the difficulty of doing science in these trees, there's always a moment during a climb when you can lose yourself," he went on. "You perceive time more clearly in redwoods. You see time's illusory qualities.... When you feel one of these trees moving, you get a sense of it as an individual."

Two weeks after my trip, Dr. Sillett and Save-the-Redwoods League announced that three redwood trees found in a remote corner of Redwood National

Park broke the record for the height of any living thing. They have been the subject of a segment on the National Geographic television show "Wild Chronicles," a story in The New Yorker, and newspaper articles around the world.

THE REDWOOD FOREST

"The discovery of the tall trees this summer is really surprising," said Sillett, Kenneth L. Fisher Chair in Redwood Forest Ecology at Humboldt State University. "It's 2006. We found these trees on steep slopes, in small fragments of forest, in a landscape that has been heavily logged."

As Sillett's surprise suggests, the redwood forest is far from being entirely investigated. It was only last decade that Sillett, a renowned canopy biologist, discovered an abundance of diversity in the upper reaches of the redwood forest, a place people had previously labeled a biological desert. He found car-sized soil mats in crevices of redwood limbs. For centuries they had been accumulating organic matter, kept moist by rainwater. Epiphytic ferns, shrubs, and fungi grew on them. Crawling in tunnels underneath their surfaces were insects and amphibians.

The discovery of these trees this past summer is striking proof that important discoveries in the redwood forest are not only for scientists. The tall trees were found by explorers—working day jobs, obsessed with redwood forests, who spend their spare time searching for the tallest trees they can find.

THE EXPLORERS

Chris Atkins is a salesman. Michael Taylor brokers silver on eBay. Both live outside of the redwood region. However, they have two notable things in common: the enthusiasm to find record-breaking tall trees and the

SUPPORTING EXPLORATION

For the past ten years Save-the-Redwoods League has been supporting scientific research that improves our understanding of the redwood forest and its ecosystems.

Steve Sillett has been the recipient of three Save-the-Redwoods scientific research grants. By way of this funding, he and his graduate student, Greg Jennings, have explained the biophysical process by which redwood tree growth slows to a halt at great heights.

Other research supported by Save-the-Redwoods League includes investigations of how redwoods have responded to variations in climate and levels of summer fog, the ancestry of coast redwoods, and the use of fire-scarred basal hollows in giant sequoias.



Explorers Chris Atkins and Michael Taylor photo: Ruskin Hartley

Chris Atkins and Michael Taylor have proven that there are tremendous and invigorating discoveries to be made in the redwood forest, and not only by scientists. Please take time to visit the redwoods and make observations of your own. What grows on the fallen redwood logs? Do the size and number of redwoods change as you walk uphill? Where do the tallest trees grow? What animal left that footprint?

grit to bushwhack through the redwood understory. For the past 10 years these two men have spent their free time hunting big trees. They have covered 70% of Redwood National Park's old growth forest and in the process have discovered 101 of the known 137 trees over 350 feet.

"I'm not in it for praise," says Atkins. "It's a passion—something I love to do." Atkins and Taylor search the forest by spreading themselves out as far as they can while keeping within earshot of each other. Then, moving through the trees, they use radios to communicate. "You go with your feeling and what you see," says Atkins. "You'll get to one area and you'll think, 'there's nothing here.' Then you get to another area that all of a sudden looks juicy with big trunks and tall crowns and you say, 'OK, we've got potential—that's when you get out the laser.'"

To measure a redwood giant, they position themselves on opposite sides of the tree and shoot light from laser range finders at the topmost foliage of the tree. Laser range finders look like binoculars and measure distance by detecting light reflected from a surface. Atkins and Taylor measure the distance from their standing location to the tip of the tree and to the base of the tree and their elevation above or below the base. Then they fiddle with geometry to find its height.

On July 1st, after ten years of searching through Redwood National Park and discovering tall trees in the process, they arrived at a grove of giant redwoods high on a steep slope. The trees struck them as an anomaly: of the 137 known redwoods over 350 feet tall, only eight trees grow in this



Dr. Steve Sillett at the top of Hyperion, 379.1 feet

"...monitoring of the tall trees with insights into the health of the forest environment."

RUSKIN HARTLEY, EXECUTIVE DIRECTOR

environment. All other known trees of this height grow on nutrient rich stretches of ground next to streams in canyons, where they are protected from wind and draw from a steady supply of water.

They spotted a tree that extended high above its neighbors on a steep slope. With their laser range finders, they measured it at 375 feet tall—five feet taller than the tallest known tree. In the early evening light, they saw the crown of this tree, lit by the sun, glowing green above the dark trees beneath it. They decided to name it after the Greek sun god, Helios. Six days later they found another tree, one they measured at 371 feet tall. They named it Icarus.

On August 25th, Atkins and Taylor found a third tall tree. "We shot our laser at a steep angle but when I got the reading I thought, 'Wow! That tree is way up there!' About fifteen minutes later Michael came over from the other side and said to me, 'Helios is now the second tallest tree.'"



photo: Ruskin Hartley

*allest trees can provide us
lth of the redwood forest.”*

CTOR, SAVE-THE-REDWOODS LEAGUE

They named this giant Hyperion, after the Titan who was the father of Helios. They estimated that Hyperion was close to 380 feet tall.

THE CLIMB

When confirmed, this preliminary measurement of Hyperion would mean the greatest increase in the maximum known height of a living thing since 1931, when the Founders Tree in Humboldt Redwoods State Park was measured at 364 feet. Laser range finders, while useful for measuring height from the ground, are only accurate to within a few feet. Atkins and Taylor called on Steve Sillett for an official measurement.

“The most accurate way to measure tree height is to climb to the top and lower a fiberglass tape with a weight straight to the ground, have somebody on the ground pull the tape tight, and get the number. With any survey work from the ground, you can’t be sure that you’re hitting the highest leaf,” said Sillett.

On September 16, 2006, Sillett, his wife and research partner Marie Antoine, and professional canopy biology consultant Jim Spickler, set out to measure Hyperion. Save-the-Redwoods League coordinated the expedition. The scientists were also accompanied by National Park staff and Richard Preston, acclaimed tall trees writer.

Sillett was the first into the canopy of Hyperion. After an hour of climbing, he called over the radio, “This tree just seems to go on forever.” At the top of the tree, Sillett removed his shoes and climbed just high enough to touch a telescoping metal pole to the tip of the topmost leaf of the tree. He measured the length of the pole and sent a tape down. The final measurement of Hyperion was 379.1 feet tall—the world’s tallest living thing.

THE PLEASURE IN DISCOVERY

Ruskin Hartley, executive director of Save-the-Redwoods League, explains that the monitoring of the tallest trees can provide us with insights into the health of the redwood forest.

“Hyperion is one tree at the center of Steve Sillett’s study of a broad range of the world’s tallest trees,” he says. “By tracking the progress of those trees over time, we can better understand how they are affected by the changing environment.”

ABOUT THE AUTHOR

Matt Wilson was Save-the-Redwoods League’s 2006 Summer Conservation Science Intern. He has bachelor’s degrees in biology and literature from UC Santa Barbara.



For more information about Hyperion see our website SaveTheRedwoods.org

SCIENCE RESEARCHERS

STEVE SILLETT

In February of 2006, Dr. Steve Sillett, professor at Humboldt State University, was named the Kenneth L. Fisher Chair of Redwood Forest Ecology for pioneering the field of canopy biology.



Scientists Marie Antoine and Steve Sillett. photo: Phil Schermeister

He has been featured in many television programs, such as the Discovery Channel’s Planet Earth, the IMAX movie “Adventures in Wild California,” and an October 9, 2006 New Yorker article on the Hyperion climb.

MARIE ANTOINE

As a college student at Oregon State University, Marie became fascinated with forest lichen. Eventually she completed a Master’s study on the lichen of Oregon’s Douglas-fir forests.

Recently, she has been doing redwood canopy research with her husband Steve Sillett in an effort to explain the factors that limit the height of tall trees.

JIM SPICKLER

Jim grew up climbing Joshua trees in Barstow. He became interested in climbing redwoods when he was asked to monitor the endangered marbled murrelet, in the early 1990’s.

Now, he is the senior biologist and owner of Eco-Ascension, a biological consulting firm specializing in canopy assessment.

Challenge Grant Expands Forest

With a grant from Save-the-Redwoods League, Californians now have a new place to enjoy, thanks to the recent addition of the 175-acre Sunny Brae property to Arcata Community Forest. The League partnered with Trust for Public Land and several other national, state and local organizations to make this purchase possible.

The Arcata Community Forest is owned by the City of Arcata and is managed for multiple uses including hiking, picnicking, cycling and sustainable timber harvest. The Forest is managed to attain characteristics of an ancient redwood forest, and is owned by one of the greenest cities in the nation. The Forest has become a model for community forests around the world.

The property owner, had a timber harvest plan filed allowing aggressive logging that could lead to development given the property's proximity to the City. Facing a funding shortfall with the closing date approaching, the City found it might lose the opportunity to expand the Forest. Using funds provided by League donors, the League stepped in to offer a challenge grant of \$150,000. The grant galvanized neighbors and environmental supporters to collect funds, and by the closing date, the full purchase price had been raised.

The League's involvement in this project guarantees that 35% of the forest will be maintained as a redwood forest reserve in perpetuity, ensuring that old growth characteristics are developed for future generations to enjoy.

The City of Arcata will remove invasive plants, correct erosion problems and decommission unused logging roads. The City also plans to enhance the recreational and educational capacity of the property by adding over four miles of trails for use by outdoor enthusiasts.

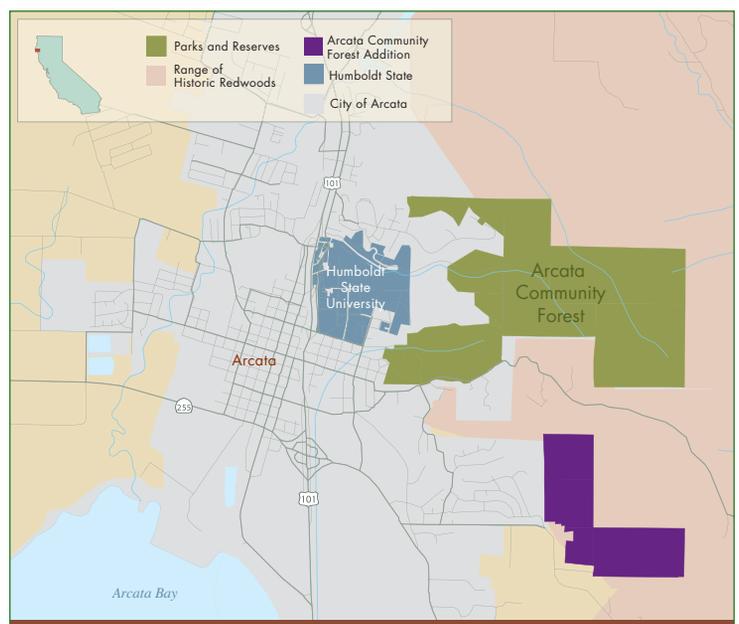
ADDING TO HUMBOLDT REDWOODS STATE PARK

The League recently completed the transfer of 27 acres from the Pacific Lumber Company to California State Parks. Highly visible along Highway 101, this small stand of ancient redwoods is adjacent to the northern stem of Humboldt Redwoods State Park. In 2004, a pending timber harvest plan triggered

numerous calls to League offices from environmental supporters and other members of the public. The League promptly entered into negotiations with Pacific Lumber that led to the land's purchase. The parties completed the transaction in fall of 2006, permanently protecting these ancient trees and the skyline of the park.

MORE ADDITIONS TO STATE PARKS

The League and State Parks are working together closely to gain the approval from California's Department of General Services and the State Public Works Board to accept three of the League's properties into the State Park system. With approval in January, the League is poised to transfer the 93-acre "Paragon Grove" of ancient redwoods to California State Parks for addition to Mill Creek—one of only two old growth groves in Mill Creek. In March, the League expects to receive final approval from the Public Works Board to add 307 acres of redwood forest and rare sandhill habitat to Henry Cowell Redwoods State Park, protecting both majestic redwoods and tiny endangered species such as the Mt. Hermon June beetle and the Zayante band-winged grasshopper. At the same time, the League should receive authorization to transfer a half-acre in-holding to the Forest of Nisene Marks State Park.



Map by GreenInfo Network www.greeninfo.org

Salamanders and Forest Recovery

Focus on Redwood Science

With less than 5% of the ancient redwood forest remaining, protecting and restoring the delicate relationships between plants, animals and their environment is one of the League's conservation priorities. The redwood forest offers one of the best opportunities in the world to test principles of conservation and restoration because in many areas, the forest still contains many of its requisite parts.

The Mill Creek Project is a restoration experiment on a grand scale that is intended to help answer the question: will an ecosystem recover on its own or are intentional forest restoration actions needed to assist recovery? Ideally located next to old-growth reserves, this young, logged forest is the perfect laboratory to study forest recovery. And salamanders, because of their sensitivity to environmental change, may provide a good indication of a recovering forest's condition through time.

Studying Mill Creek's young forests and old-growth forests, scientists from the Redwood Sciences Lab set out to explore a simple albeit highly relevant question: are salamander communities in logged forests different from those found in nearby old-growth reserves?

Supported by a research grant from Save-the-Redwoods League, researchers Dr. Hartwell Welsh and Garth



*Salamander,
Ensatina
eschscholtzii
photo: William
Leonard*

Hodgson have unearthed some fascinating initial results. Their findings demonstrate that older forests support both a higher density and a higher diversity of salamanders than the young, previously logged forest. Even more intriguing, the researchers note that by using their understanding of how certain salamander species tolerate disturbance relative to other species, they can use patterns in salamander abundance as an indicator of forest recovery.

Why salamander communities reflect the forests' disturbance history is still a matter of some speculation. We do know that salamanders inhabit the uppermost layer of recently discarded leaves on the forest floor and that timber management temporarily reduces or eliminates this habitat. But what happens as the litter layer recovers? Will the salamanders return? Researchers Welsh and Hodgson intend to delve deeper into this and other fundamental questions this coming spring with continued support from the League.

GROWING UP REDWOOD

Melinda Thomas grew up without a jungle gym, a sandbox, or even a swingset in the backyard of her childhood home in Palo Alto. But she doesn't ask for sympathy – after all, she had a giant redwood tree.

“I was always in that tree,” Melinda says. “The branches were like a ladder, and it became a rite of passage in our childhood to be able to climb to the top of the tree and look out at the San Francisco Bay. Whenever I ran away from home, my parents knew that they could find me there.”

She doesn't climb them anymore, but redwoods still offer Melinda an escape from an often chaotic world. Her profound respect for the trees led her to join Save-the-Redwoods League in 2001. Today, Melinda is a member of the Leadership Society and the Legacy Circle and she volunteers her time as a member of the Board of Directors.

“Save-the-Redwoods League is working carefully and effectively to ensure our ancient forests are protected so that when people visit California they can forever experience the profound impact these trees can have on one's life.”



photo: Ruskin Hartley

1000th Grove Dedicated

JOIN THE EVERGREEN
SOCIETY

Earlier this fall, the League dedicated its 1,000th redwood grove. The Smith Family Grove in Pfeiffer Big Sur State Park is located near the banks of the Big Sur River and contains some of the most beautiful redwoods in the park, including a spectacular stand of trees that formed after a giant redwood was destroyed in a fire.



Today, the charred remains of the parent tree still stand, and its sprouts have created a beautiful “fairy ring” of redwoods that shape the centerpiece for this grove.

Photo: 1,000 redwood groves have been named in the League's 89-year history. The milestone was marked by the dedication of a grove to honor the love shared by members Benjamin and Ellen Smith.

Benjamin and Ellen Smith have been members of the League since 1992. When Ellen was diagnosed with cancer last year, the couple decided to make their grove a reality. Before she passed away in November, Ellen said, “We know we won't be able to be on this earth forever. But we also know that, like these trees, our love will never die.”

With the dedication of their grove, Benjamin and Ellen joined a select group of League supporters who have named groves in California State Parks. Like the Smith Family Grove, some groves honor the everlasting love shared between two individuals or an extended family. Other groves are established in recognition of a special birthday or anniversary, or to acknowledge the work of a favorite group or organization.

Regardless of the reason for the dedication of a redwood grove, the individuals, families and organizations that have named these lands have played an important role in both the history of the League and the State of California.

 For information about dedicating a redwood grove, contact Andrea Tyler at 415-362-2352 x328

You are invited to join the Evergreen Society, the League's monthly giving program. The Society is composed of people who like the ease of automatic credit card donations and the knowledge that they are providing a steady source of revenue for Save-the-Redwoods League that is highly cost effective.

As a member of the Evergreen Society, you will receive the League's Spring and Fall Bulletins, information on our current forest protection projects, and recognition in our annual report.

Please contact our Membership staff at 1-888-836-0005, or membership@savetheredwoods.org for more details.

Thank you for your generosity which enables us to continue our work to protect this treasured part of our global heritage.

HERE ARE SOME
WAYS THAT YOU
CAN SUPPORT THE
PRESERVATION OF
THE REDWOODS

- 1. VISIT** the redwood forest with friends and family as often as you can!
- 2. EXPLORE** volunteer opportunities.
- 3. TALK** to your friends about our work protecting redwood forests and about why you're a member.

- 4. LET YOUR ELECTED REPRESENTATIVES KNOW** that you want them to help you support and protect the parks and the ancient forests. Take every opportunity to speak for the trees.
- 5. DONATE** to the League by visiting us online: SaveTheRedwoods.org.



To receive email updates about our work, send your email address to membership@savetheredwoods.org

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