



# Standing Tall, Living Large

By D. Logan Nelson, Reprinted with permission from the ISA

*All the world's a stage, and all the men and women merely players.*

—William Shakespeare

A narrative nonfiction literary genius, Richard Preston has written what is possibly the best tree canopy exploration story of all time, *The Wild Trees—A Story of Passion and Daring*, published this year by Random House. This article gives readers a taste of Preston's authentic penmanship and a behind-the-scenes look at the assistance given to canopy researchers by ISA members.

## Act One

In *The Wild Trees*, Richard Preston writes,

The human species, *Homo sapiens*, originated around two million years ago in eastern Africa. Modern man is thought to be about two hundred and fifty thousand years old. The modern redwood seems to be twenty million to perhaps as much as fifty million years old. In other words, *Sequoia sempervirens* could be eighty times older than modern *Homo sapiens*. As...the earth's climate cooled off and became drier, ice caps appeared on the earth, and the redwoods lost their wars with other trees and gradually retreated.... They ended up occupying a few last redoubts scattered along what is now the coast of California (p. 218).

## Scene One

Old-growth forest, also called ancient forest or ancient woodland, is the area of forest that has attained great age and exhibits unique biological features (Wikipedia 2007a).

Typical characteristics of old-growth forest include the presence of old trees, minimal signs of human disturbance, mixed-age stands, presence of canopy openings due to tree falls, pit and mound topography, downed wood in various stages of decay, standing dead trees (snags), multi-layered canopies, intact soils, a healthy fungal ecosystem, and presence of other indicator species (McCarthy 1995).

Old-growth forests are often associated with rich communities of plants and animals that may be dependent on the unique environmental conditions created by these forests. Hence, old-growth forests serve as a reservoir for species that cannot thrive or easily regenerate in

younger forests and, as such, can be used as a baseline for research.

## Act Two

Although some of these old-growth forests house what are known as the ancient wild giants [coast redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*), eucalyptus (*Eucalyptus regnans*), giant sequoia (*Sequoiadendron giganteum*), and western hemlock (*Tsuga heterophylla*)], it is Redwood National Forest where the tallest of the tall trees were recently discovered, climbed, and measured, in 2006. The coast redwood, born of the cypress family, rising into the heavens 379.1 feet, has been given the name Hyperion, and its location remains undisclosed.

## Scene One

Preston writes,

In 1985, a team of paleobotanists exploring a mountain in Antarctica found two fossilized seed cones, each the size of a jumbo olive. Because of their distinctive shape, the cones clearly came from some sort of redwoodlike tree. This redwood lived in Triassic times, about 240 million years ago, when Antarctica was part of the supercontinent of Pangaea and was covered with temperate conifer forests. This was before the earliest known dinosaurs appeared on the earth.

Another fossilized redwood seed cone—one that looks almost identical to cones from modern redwoods—was found in France. This fossil cone dates from perhaps 190 million years ago. That was the early Jurassic period, when dinosaurs were all over the place. We can therefore hold in our mind's eye a nice image of dinosaurs wandering through redwoodlike forests in what is now France (pp. 216–217).

In fact, there is a great deal of information that has yet to be discovered in the ecosystems that exist in ancient wilderness forests somewhere between earth and sky.

## Act Three

One of the first pioneers to begin old-growth forest canopy exploration was Nalini Nadkarni. Although Nadkarni was daring enough to be one of the first canopy researchers to “saddle up” and climb big trees in the rainforests of Costa Rica, it was her former graduate student, Steve Sillett, who was recently profiled in Richard Preston's book, as the “skywalker” of the

redwood groves. Steve Sillett is a professor at Humboldt State University, in Arcata, California. He and his team of researchers, including his wife, Marie Antoine, study tall forest canopies in California, Oregon, Washington, and Australia. They are trying to increase human understanding of earth's forests by revealing the intricacies of the remaining old-growth forests.

How do botanists become strong, efficient, safe, and ethical tree climbers? It should not come as any surprise that some of the top climbers and longtime members of ISA and TCIA are key players in canopy research.

## Enter Stage Right: Kevin Hillery

ISA Certified Arborist Kevin Hillery, of the Pacific Northwest Chapter, was one of the first people Sillett encountered in the arboricultural climbing community. Hillery took first place in the Pacific Northwest Chapter's 1986 tree climbing competition and second place in the chapter's 1993 and 1995 competitions.

Sometime in the mid-1980s, Hillery introduced Sillett to some arborist-style climbing techniques and climbing gear that would forever change and enhance Sillett's climbing practices.

## Enter Stage Left: Tobe Sherrill

In the mid-1980s, Tobe Sherrill, owner of Sherrill Tree and Climbing Supply in Greensboro, North Carolina, changed the focus of the company to tree climbing gear that allowed for safer, more efficient, and more ethical tree climbing practices.

Sherrill is responsible for introducing the tree climbing community to the throwline and the Big Shot, cambium and friction savers, ascenders, and descenders. Sillett and arborists worldwide were grateful.

Sherrill's vision was also to provide a catalog that offered illustrated instructions about how to safely and efficiently use the gear.

## Enter Stage Right: Bryan Kotwica

Artist Bryan Kotwica graduated from the School of the Art Institute of Chicago. After watching a tree crew from the Davey Tree Expert Company climb to trim trees in the backyard of his Arlington Heights, Illinois, home, Kotwica decided he wanted to climb trees for a living. In 1988, a crew with The Care of Trees gave Bryan his first tree climbing lesson.

Kotwica, an ISA certified arborist, has competed in every Illinois Chapter tree

climbing competition since 1989. Still residing in Illinois, Bryan climbs trees full-time during the day for Davey Tree and spends his evenings creating original illustrations for Sherrill Tree, ISA, and many other arboricultural industry associates who recognize Kotwica's talents.

### Enter Stage Left: Peter Jenkins

ISA Certified Arborist Peter Jenkins, current president of the Georgia Arborist Association and owner of Tree Climbers International (TCI) in Atlanta, also recognized Kotwica's talents and hired him to draw illustrations for a recreational tree climbing guide. Although the guide was never published, the project gave rise to an instructional DVD.

TCI, founded in 1983, established a rigorous course of study and practice for people who want to become tree climbing teachers. To become TCI certified, students must go through facilitator and instructor programs.

### Enter Stage Right: Richard Preston

Richard Preston, who lives near New York City, is a contributing writer to the *New Yorker* and author of *The Hot Zone*, *The Demon in the Freezer*, and *The Cobra Event*.

Preston's outside interests include whitewater canoeing, mountain biking, wilderness backpacking, and, recently, tree climbing. Preston came across TCI, owned by Jenkins, while surfing on the Internet.

"I had never thought about climbing trees with ropes, and it seemed weirdly appealing. I got a cheap flight to Atlanta and began to learn the art of movement in a forest canopy. At the time, I had never heard of Steve Sillett or of redwood climbing. The threads of chance and desire that join us into a world of human experience had yet to ensnare me in the redwoods," writes Preston in *The Wild Trees* (p. 137).

### Enter Center Stage: *Sequoia sempervirens*

Coast redwoods occupy a narrow strip of land approximately 470 miles long and 5 to 47 miles wide along the Pacific Coast. The largest populations are in California's Jedediah Smith Redwoods State Park, Redwood National Park, and Humboldt Redwoods State Park (Wikipedia 2007b).

This area provides a unique environment with heavy seasonal rains (100 inches annually), cool coastal air, and fog that keep this forest damp year-round. Because the heavy rain has left the soil with few nutrients, these trees depend on the entire biotic community of the forest and complete recycling of the trees when dead.

### Conflict/Resolution

With a hidden agenda (to be able to

write an article from the top of a redwood), Preston flew to the California coast to interview Steve and Marie for a *New Yorker* piece. According to Preston, Sillett was guarded—of himself and of the redwoods.

Sillett told him, "Not only are the redwoods sensitive to damage from climbing, but the whole habitat of the canopy is fragile. If people start climbing around in it for recreational reasons, it will inevitably be damaged." (p. 218).

Canopy scientists struggle with the safety and ethical implications of invading the fragile ecosystems that our few remaining ancient forests contain. If researchers are not extremely careful and responsible, the very organisms they are trying to understand, for the purpose of future management and conservation, could be destroyed in the name of science.

However, Sillett and Antoine understand the realities of scientific research. It requires public awareness, funding, and collaboration. Sillett enlisted scientists and arborists from around the world as collaborators in his efforts to study the fragile ecosystems in wild, ancient forests. Tom Greenwood, who has competed for eight years at ISA's Australian Chapter's tree climbing competition and three years at the ITCC, assists Sillett with his studies in the eucalyptus of Australia. Dan Kraus, who spent eight years as a climber foreman at Seattle Tree Preservation and was ITCC champion in 2005, has also assisted Sillett. Tobe Sherrill and Bryan Kotwica recently returned from their fourth visit to assist Steve in ascending redwoods to retrieve and document scientific information.

As for Preston, after he completed many more training sessions at TCI, Sillett agreed to collaborate with him. Sillett

offered Preston the granddaddy of them all: the chance to accompany researchers into Hyperion—the tallest redwood discovered thus far. Preston wrote a 284-page story based on that experience.

### Enter from a Bookstore Nearest You:

Preston's book delivers on the promise of its subtitle. The story is one of passion and daring, written in a style that closely resembles Edward Abbey's, *The Monkey Wrench Gang*. Preston exposes readers to the minds and hearts of these truly passionate and daring explorers of the redwoods.

He describes the fragility of the monsters that loom in the last remaining ancient redwood groves and the implications involved in trying to understand them.

Perhaps the only thing lacking in the book is a more deeply expressed message about the need to be responsible stewards of our few remaining ancient forests. These wild monoliths should not be climbed for recreational purposes. They should be understood, yet left unfettered, to give life, to stand tall, and to live large.

### References

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*With formal training in arboriculture, writing, and education, as an ISA Certified Arborist, an ASCA Registered Consulting Arborist, and author of more than 100 published works, Logan Nelson specializes in expert arboricultural investigations and has a full-time consulting practice in Dane County, Wisconsin.*

## A Few Words from

# Random House Publishers



"Richard Preston unfolds the spell-binding story of Steve Sillett, Marie Antoine, and the tiny group of daring botanists and amateur naturalists that found a lost world above California, dangerous, hauntingly beautiful, and unexplored.

"The deep redwood canopy is a vertical Eden filled with mosses, lichens, spotted salamanders, hanging gardens of ferns, and thickets of huckleberry bushes, all growing out of

massive trunk systems that have fused and formed flying buttresses, sometimes carved into blackened chambers hollowed out by fire called 'fire caves.' Thick layers of soil sitting on limbs harbor animal and plant life that was previously unknown to science. Humans move through the deep canopy suspended on ropes, far out of sight of the ground, knowing that the price of a small mistake can be a plunge to one's death."