

Nature Trails

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The Lost Monarch, in the Grove of Titans. The largest redwood on earth. Photo © Michael W. Taylor.

**Stephen Sillett, Professor of Biological
Sciences, Humboldt State University, Arcata,
California "Ecology and Physiology of the
World's Tallest Trees"**

**Friday, 20 March 2009, 7:30PM, Room 100,
Willamette Hall, UO Campus**

Professor Stephen Sillett, who will be our April speaker, has eaten ripe huckleberries from a bush growing well over 300 feet in the air – in the crown of a redwood tree. Sillett holds the Kenneth L. Fisher Chair of Redwood Forest Ecology at Humboldt State University in Arcata, California. He and his wife and colleague, Marie Antoine, have climbed many of the tallest California redwoods, *Sequoia sempervirens*, in their continuing study of the complex ecosystem enabled by the canopies of these ancient, majestic plants. What they have found up there – other trees, huckleberry bushes, ferns, lichens, caves, soil, water, salamanders – is surprising, to say the least. How they learned to get up there is an exciting, compelling story in itself.

A book about this ongoing line of research, as well as a history of the major players, came out recently: *The Wild Trees*, by Richard Preston. A review of that book follows this introduction. Another source of information about Sillett and his research is on the web at

<http://www.humboldt.edu/~sillett/sillett.html>

If you go to this site, do not fail to look at the photographs – there are links to pictures not only of redwood canopies, but also of the other exceptionally tall tree species he has climbed and studied. Be warned: some of these pictures may give you the willies.

Growing up in Harrisburg, Pennsylvania, Sillett and his family took camping trips as vacations. His grandmother introduced him and his elder brother to birding. She was also passionate about plants, including Latin names, and that may have been in part responsible for Sillett's lifelong attraction to trees.

After high school in Harrisburg Sillett came to Oregon to attend Reed College in Portland. While there he began exploring the canopies of tall trees. In the beginning of Preston's book is an account of Sillett's first

ascent of a mature redwood – at age 19, with no ropes. He learned somewhat safer techniques from Bill Denison, a (now retired) professor at Oregon State University. With Bachelor's degree from Reed in hand he went to the University of Florida and earned a Masters doing research in Costa Rica studying biodiversity in canopies of tropical cloud forests. From Florida he returned to Oregon, where he completed his Ph. D. at Oregon State University, focusing on biodiversity in mature Douglas-fir canopies for his dissertation research.



Steve Sillett in a tree. Photo © Sillett and Antoine.

In 1996 Sillett accepted a faculty post at Humboldt State University, where he commenced research on the complex ecosystems that exist hundreds of feet above the ground, in the upper reaches of mature redwoods. His work has met with critical acclaim, having appeared in journals such as *Nature*, *American Journal of Botany*, *Ecological Monographs*, *Ecological Applications*, *Bryologist*, and *Northwest Science*, and in magazines such as *The New Yorker*. Recently he and his collaborators

received a substantial grant from the National Science Foundation. In 2006 Humboldt State University declared Sillett its Scholar of the Year.

Professor Sillett will speak to the Eugene Natural History Society on Friday, 17 April 2009, at 7:30pm in Room 100, Willamette Hall, on the University of Oregon Campus.

His talk is entitled “Ecology and Physiology of the World’s Tallest Trees”. This promises to be a most exciting and interesting presentation, complete with literally breathtaking visuals. I urge you to come, and to bring friends and family. John Carter

The Wild Trees, by Richard Preston. Reviewed by Judi Horstmann.

Have you wondered what lives in the tops of the tallest conifers or what it is like to scale tall trees? If so, you will find Richard Preston’s book, *The Wild Trees*, an informative, exciting narrative. He follows the adventures and explorations of botanist and tree climber Steve Sillett (April’s ENHS speaker), his partner lichenologist Marie Antoine and a small group of other botanists and amateur naturalists as they explore the magnificent and magical giant coast redwood trees (*Sequoia sempervirens*). These mammoth trees, which can reach 30 ft across and 370 ft tall, typically grow in dense, impenetrable stands within a narrow strip of coastal rainforest extending from Big Sur California north to the Chetco River valley in southern Oregon.

It is difficult for persons on the ground to comprehend the diversity and complexity of communities living high up in these trees. In addition to describing how and why these climbers are passionate about coast redwoods, Preston presents natural history about the trees and the flora and fauna living in them, and chronicles the development of improved techniques for tree climbing that have enabled scientists to study forest canopies. OSU botanist Bill Denison was the first to climb conifers by installing ropes in a few H.J. Andrews Experimental Forest Douglas firs in order to gain access to the trees along their trunks up to 200 ft. Current climbing techniques allow “skywalking”, i.e., horizontal as well as vertical

movements throughout the canopy. The work is dangerous, but opens up a previously unexplored world of intricate networks of limbs, branches, and secondary trunks covered with lush epiphytes.

During an early free-climbing endeavor (sans ropes and safety equipment), Sillett overcame his fear of heights to scale a redwood, at the top of which he found a grotto of branches radiating out from a stump that had sprouted vertical trunks. In the center of the rotting stump grew huckleberry bushes brimming with ripe berries. Later documented coast redwood fauna and flora include wandering salamanders living in holes in rotten wood at 300 ft, copepods flourishing in aerial fern gardens, rhododendrons blooming at 150 ft, lichens, mosses, salal, currant, elderberry salmonberry, and bonsai California laurel. Sillett became so comfortable at the top of these trees that he sometimes slept there in his “Treeboat” (hammock). He and Antoine even married in mid-air, suspended between two redwoods.

Author Preston learned skywalking climbing techniques in order to fully experience these giants and to appreciate the passion that biologists such as Sillett have on their quest to find, understand and protect the magnificent coast redwoods. In the process, Preston weaves an entertaining story that is educational and presents a forceful case for preserving this unique and ancient ecosystem.

Red Alder, by Tom Titus

Late last winter
I finally looked up through misty gray
twining the ridgetops and discovered why
red alder really is
Red.

No, not that
in-your-face
cocktail dress
sports car
singularly screaming for attention
Red.

But maroon catkins,
millions hanging from leafless limbs
celebrating Winter's end
in wet, fertile silence,
subtle, deeper than Thought,
Red.

Individuals, imperceptible, unnoticed,
collectively becoming splashes
of burgundy on fir-mantled mountains
Red.

Funny thing,
that after all those winters
gazing on alder hillsides
I'd not seen this obvious Truth in
Red.

Thoughts about our trees, by John Carter

Several large trees – backyard large, not redwood large – grow on our lot. Douglas firs, oaks, maples, Grand fir, a pine or two of unknown pedigree, even a decent-sized female holly.

Only if it were dead or on the brink of falling would I ever think of cutting one of them down. Yet when I find new seedlings I pull them out with no qualm: not a second thought.

Where is the line? What facets must it have for me to judge a tree free and clear, worthy? Size, clearly. If height or girth reaches some value known by some primitive part of me, the tree has worth and has to be left alone. No matter that its growth is slowly destroying the driveway or the steps to the backyard, its majesty demands it be accommodated.

But not size alone. Potential also counts. If it is in a place that needs a tree, even though it is small my mind's eye guesses what it will look like years hence, what shade it will make, what animals will use it, how it will fit in with the other plants. If that mental image looks good, it gets to stay.

Age counts, too. If it is a slow grower, a tree or a large shrub may have been around for many years and still not be very big. If it

has been in my life for a long time, even if it is small I still have a hard time cutting it down.

What kind it is figures big when I think about what to do with a tree in the yard. Take Douglas firs. Please. They are everywhere and would crowd out all else if left alone, so only the big ones command my respect. But I love those big ones!

Rarity counts too. There is a strange tree out back that even my brother the forester can't identify. It has to be an exotic, but still I want it to live. It is small, gets little light, doesn't add much to the overall effect, but I cheer it on. I dump dishwater around it in the summer. If it had been a Doug fir it would be gone.

As I make these decisions about plant life and death I am treading on shaky moral ground. Robin Attfield, in **The Ethics of Environmental Concern**, muses about what it takes for something to have moral standing. He says trees have intrinsic value and a moral case can be made against felling them. A living tree has a right to go on living.

I think most persons who have dealt with trees, if asked to think it over, would agree that a tree gradually earns its right to survive. A seedling, then, has lower intrinsic value than a hundred-year-old denizen. This

view – trees have to earn their right to survive to adulthood – accords with their treatment at the hands of Mother Nature. Young seedlings have their tops eaten, are girdled by rodents, have their leaves and shoots chewed off by deer, are killed by drought, heat, and cold. If they are lucky enough to escape notice by grazers and hit a few mild winters and summers, if their

defense systems are strong enough and crafty enough to fend off the myriad of microbes they will have to deal with, they will develop a mystical presence. They will be survivors. Animals that would have killed them will make nests in them.

And men like me will move their driveways rather than cut them down.

Events of Interest in the Community

Sunday, 19 April, 10 am – Noon. ENHS bike-path cleanup. We meet in the parking lot in front of McMinamen's North Bank near the north end of the Ferry Street Bridge. Fun and fellowship guaranteed!

Thursday, 29 April, 7:30-9:30 pm. The Origin and Early Evolution of Whales: A Profound Transition from Land to Sea. A public lecture by Dr. Philip Gingerich, Case Collegiate Professor of Paleontology, professor of geological sciences, and director of the Museum of Paleontology at the University of Michigan. Dr. Gingerich's visit is being sponsored by UO's Phi Beta Kappa chapter. Room 180 Prince Lucien Campbell Hall (PLC), University of Oregon Campus. For more, go to http://www.uoregon.edu/~pbk/Philip_Gingerich_visit.html.

Audubon Society

Tuesday, 28 April, 7:30-9:30 pm. Oregon's Klamath Basin. By Ani Kame'enui. Eugene Garden Club, 1645 High Street, Eugene. Please join Oregon Wild's Klamath Campaign Coordinator, Ani Kame'enui, in exploring the beauty and diversity of an Oregon wonder. Tucked into the southern reaches of the state, the Klamath Basin plays host to a myriad of migratory bird species every year. Snow Geese congregate in the tens of thousands, American White Pelicans dip their slender beaks in search of fish, and Bald Eagles gather in their largest numbers in the continental United States. In this presentation we will rediscover the bold beauty and harsh challenges faced by these crown jewels of the West. Come share in the spectacular images of professional photographer Brett Cole as we discuss the history and challenges faced by these terrific refuges. With a background in geology, water-resource engineering, and environmental education, Klamath Campaign Coordinator Ani Kame'enui is well suited to work for the protection and restoration of the Klamath Basin.

Mount Pisgah Arboretum

34901 Frank Parrish Rd., Eugene, 97405. Located off I-5 Exit 189, 15 minutes southeast of Eugene.

Call Clare at 747-1504 or email mtpisgip@efn.org for more information or to sign up for any of the following Arboretum activities.

Sunday, 26 April, 9-11 am. Birds & Blooms Walk. Discover the early spring birds and flowers of the Willamette Valley. Avid birder and Arboretum nature guide Rick Ahrens will teach about the adaptations that allow some birds and flowers to become active earlier than others. No RSVP required. Meet at the Visitor Center. \$5/MPA members by donation.

Friday, 1 May, 5-6 pm. May Day Wildflower Walk. Celebrate native plants with Mount Pisgah Arboretum and the Native Plant Society of Oregon. Botanist Dr. Rhoda Love will lead a wildflower walk through the Arboretum to see the beautiful natives now in bloom. This one-hour walk is FREE to all, in honor of Native Plant Appreciation Week; donations are always appreciated. No RSVP required. Meet at the Visitor Center.

Saturday, 2 May, 2-4 pm. Reptiles & Amphibians Walk. Take a look at the world of newts, snakes, lizards, frogs, turtles and salamanders as you explore their habitats within the Arboretum! Herpetologist Tom Titus leads this fascinating walk for those who want to learn about our native species. No RSVP required. Meet at the Visitor Center. \$5/MPA members by donation.

Sunday, 3 May, 8 am – noon. Birding Essentials Workshop. Whether you are new to birding or just want to improve your skills, this workshop will expand your knowledge of the avian world. Join birder Rick Ahrens and learn a systematic way to identify birds by sight and sound, and how to use your field guides and optics more effectively. Most class time will be spent in the field, so dress for the weather. Bring binoculars and a field guide; some are available to borrow. Call (541) 747-1504 to sign up. \$25/\$20 MPA members.

Saturday, 9 May, 8 – 10 am. Spring Bird Walk. Bring your binoculars and join birder Davey Wendt. Limit 20; RSVP by calling Clare at (541) 747-1504. Meet at the Arboretum Visitor Center. \$5/MPA members by donation.

Sunday, 10 May, 10 am – 4 pm. Finding and Harvesting Edible Mushrooms Workshop. Join mushroom enthusiast Josiah Legler and learn where and when to look for edible mushrooms, sustainable harvesting methods, field guide use, permitting and more. We'll meet at MPA, then carpool to a mushrooming location 45 minutes away. This class will prepare you to find and harvest mushrooms on your own, but we won't harvest what we find on class day. \$30/\$25 MPA members.

Sunday, 17 May, 10 am – 4 pm. Wildflower Festival and Plant Sale! Come to Mount Pisgah Arboretum for our annual celebration! Enjoy a huge display of native wildflowers, live music, kids' activities, great food and wine, arts, crafts, and books, and free parking! Leave pets at home. Suggested donation \$5 per person, \$10 per family. Take exit 189 off I-5 just south of Eugene-Springfield. For more info, visit www.MountPisgahArboretum.org/festivals or call (541) 747-3817.

Raptor Center

Sunday, 26 April, 10 am – 5 pm. 15th Annual Cascades Raptor Center Earth Day Celebration. Hear Native American storyteller Pony Gilbert, meet storybook guest-star raptors at Reading with Raptors sessions, and learn about these fascinating predators up-close and personal through informal programs throughout the day. With 63 resident education birds of over 30 species—from Pygmy Owls to Bald and Golden Eagles—this is a wonderful way to celebrate the diversity of Oregon's wildlife. Look behind the scenes at the wildlife rehabilitation facility, take part in family activities, enter drawings with lots of great prizes, and listen to beautiful acoustic music filtering through the woodland setting. Don't miss this unique day of fun at your community nature center! Admission is \$3 for adults and \$2 for children. Cascade Raptor Center is located at 32275 Fox Hollow Road, in Eugene, next to the Ridgeline Trail. [Shuttle service courtesy of City of Eugene's Recreation Department will run every 15 minutes from 12 noon on from Spencer Butte Middle School parking lot.] FMI: Contact Louise Shimmel or Laurin Huse, 485-1320.

WREN

Saturday, 25 April, Session 1 – 9:30 am-noon, Session 2 – 1-3:30 pm. Wetlands & Weaving for Wee Ones. Join us as we search the wetlands for cattails and tules. We will study how these important wetland and indigenous materials grow and discover all the living creatures that make cattails and tules their home. It's the start of harvest time for these wetland materials, and we'll talk about how Native American people carefully gathered these plants, while respecting the little creatures that lived within. After a guided walk with Nan MacDonald, participants will have the opportunity to make from tules and cattails a mini woven bag traditionally used to gather wild duck eggs. Each session is limited to 20 children and registration is required. Contact Holly McRae at hmcrae@wewetlands.org or 683-6494. Children must be accompanied by an adult. Suggested donation: \$2/WREN member and \$4/non-member. Meet at the West Eugene Wetlands Yurt, 751 S. Danebo Ave. in Eugene.

We welcome new members! To join ENHS, fill out the form below. You will receive *Nature Trails* through December of next year. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of *Nature Trails*. Please mail your check to Eugene Natural History Society, at the address below.

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ANNUAL DUES: Contributing 20.00
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Generosity is Appreciated

Do you have any special experience in natural history? _____

Would you like to organize/lead field trips? _____

Teach informal classes? _____

Work on committees? _____

What natural history topics interest you for future talks?_____

ENHS Schedule of Speakers and Topics, Remainder of 2008-2009

17 April 2009 - Steve Sillett, Associate Professor, Humboldt State University
"Ecology and Physiology of the World's Tallest Trees"

15 May 2009 - Bruce Mate, Director, Marine Mammal Institute, Newport, Oregon
"The Biggest and the Deepest: Tracking Whales"

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