STREET TREE SEMINAR, INC.
Your Los Angeles/Orange Regional Urban Forest Council
P.O. Box 6415
Anaheim, CA 92816-6415

GROW OUR COMMUNITY
invest from the ground up
Growing Trees Make Great Neighborhoods
WWW.CATREES.ORG

NEXT MEETING
December 17, 2015
Scholarship Awards & Officer Installation
Kellogg West Conference Center
Pomona, CA

2015/16 Meeting Schedule

Dec. 17	Annual Scholarship Awards & Officer Installation	Kellogg West Conference Center Pomona, CA
February 3	WTMS - Winter Program	Rothenberg Hall Huntington Library and Gardens

Interested in hosting a program in your community? We are interested in hearing from you!
Contact heather@streettreeseminar.com

MISSION STATEMENT
"To promote the advancement of urban forestry and provide a forum for tree care professionals to share their experiences, knowledge, and expertise for the benefit of the membership and the enhancement of Southern California's community forests."

VISION STATEMENT
"To enhance the health and beauty of Southern California cities by improving the quality of our community forests."

Remember to email Ann Hope at ann@mauget.com with your reservation

STREET TREE SEMINAR, INC. - Your Los Angeles/Orange Regional Urban Forest Council

STS Newsletter

NOVEMBER/DECEMBER 2015 **VOLUME XXI ISSUE 6**

Trees either hunker down or press on in a drying and warming western US

In the face of adverse conditions, people might feel tempted by two radically different options -- hunker down and wait for conditions to improve, or press on and hope for the best. It would seem that trees employ similar options when the climate turns dry and hot.

Two University of Washington researchers have uncovered details of the radically divergent strategies that two common tree species employ to cope with drought in southwestern Colorado. As they report in a new paper in the journal *Global Change Biology*, one tree species shuts down production and conserves water, while the other alters its physiology to continue growing and using water. As the entire western United States becomes warmer and drier through human-made climate change, these findings shed light on how woody plants may confront twin scourges of less water and hot weather.

The authors, UW biology graduate student Leander Anderegg and biology professor Janneke Hille Ris Lambers, wanted to understand if different tree species employ similar coping strategies for drought, and how these strategies would affect their future ranges in a warmer and drier climate. They compared how two common tree species differ in terms of shape, growth rate and physiology across wet and dry portions of their native ranges.

"We really wanted to identify the entire suite of strategies that a plant can use to grow in drier environments, as well as which of these strategies each tree would employ," said Hille Ris Lambers.

Along the slopes of the La Plata Mountains in Colorado's San Juan National Forest, dry and hot conditions at lower elevations limit tree growth and survival. The ponderosa pine (Pinus ponderosa) grows along these lower elevations. Higher up the slopes, trembling aspens (Populus tremuloides) dominate, and the lowest point of the aspen's range overlaps with the higher reaches of the ponderosa pine. In the summer of 2014, Anderegg and a team of UW undergraduates collected leaf, branch and tree ring samples of both trees at the extremes of these ranges to learn how they adapted to drought conditions, measuring qualities like growth rate and water tension within the woody tissue.

Anderegg discovered that the trembling aspen and ponderosa pine adopt opposite strategies to cope with drought, with implications for their range and survival.

"On average, this region has already warmed up over 1.5 degrees Fahrenheit in the last 30 years," said Anderegg. "And what were once 100-year droughts are expected to become more frequent in the coming centuries."

The ponderosa pine used a strategy of "drought avoidance" by conserving water, especially by shutting the tiny openings on its leaves to prevent water loss and slowing growth. The trembling aspen, in contrast, deployed strategies that would allow it to keep growing -- at least for a while -- during drought, with no change to water conservation strategies.

"On the dry end of their range, the trembling aspens are relatively short with these really fat leaves," said Anderegg. "Internally, they also grow really strong xylem vessels, which move water inside of the tree. As a consequence, they are much denser and they also grow slower."

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Notes from our September 2015 Meeting

Our September 2015 meeting was held at UCI.

Past Presidents in attendance were: Fred Roth and Paul Webb.

Prizes were donated by: Cy Carlberg Associates, Mauget, & Fred Roth

Raffle Winners: Ken Pfalzgraf, Ryan Hanley and Kenneth Graham.

Next Meeting: Please join us December 17th for our Annual Scholarship Awards & Officer Installation at Kellogg West in Pomona.

Visit our website for more information or to register. Www.streettreeseminar.com

Trees & Climate, cont.

These strategies may influence the contraction of each tree species' range over time. The trembling aspen's push to grow might make it more vulnerable to severe or prolonged drought, especially at its dry lower range. Anderegg believes the aspen's range might shrink in "fits and starts" as a hotter a drier climate settles in. A severe drought in 2002, he notes, already killed off large numbers of trembling aspen at the study site.

The ponderosa pine's strategy of "drought avoidance" might mean that its range will contract more gradually than the trembling aspen's, the authors note. These differences in adaptation will reshape forest ecosystems in the face of climate change, they believe. Anderegg and Hille Ris Lambers would like to identify the tree life stages most vulnerable to drought, which might affect how quickly their ranges contract, and what forest policymakers could do to try to cope with these changes.

"If we know how the forests will change, we can hopefully manage things so that we don't lose the things we love and rely on -- things like air and water purification, erosion control and forest biodiversity," said Anderegg. "We'd like to be able to mitigate some of the negative effects to this vast public resource and keep climate change from being hugely detrimental."

**source: Science Daily.com;

Upcoming Industry Events

January 9	Fruit Tree Pruning Workshop	National City, CA	www.ptcasandiego.org
February 25	CTFRP So Cal	TBD, CA	www.wcisa.net
March 18	Annual Day of Safety	Santa Barbara, CA	www.wcisa.net
March 19-20	Tree Climbing Championships	Santa Barbara, CA	www.wcisa.net
May 2-5	Magic in Our Urban Forests	Anaheim, CA	www.wcisa.net

Western Tree Management Symposium– Winter 2016– Feb. 3, 2016

~Tentative Program~

8:00 am	***Registration Opens***
8:30 am	Mr. Leon Boroditsky, City of Los Angeles Recreation and Parks, STS 2016 President ***Welcome and Introductions***
8:45 am	Dr. James P. Folsom, Huntington Botanical Gardens, San Marino, CA ***Welcome to the Huntington***
9:15 am	Mr. Andy Lipkis, Founder, TreePeople, Los Angeles, CA ***A Conversation about Trees***
10:00 am	***Break***
10:15 am	Dr. Greg McPherson, Research Forester & Dr. Natalie Van Doorn Research Urban Ecologist, USFS Pacific Southwest Research Station, Davis, CA ***State of California's Urban Forests***
10:45 am	Dr. Joe R. McBride, Professor Emeritus, University of California, Berkeley, CA ***Street Trees for California's Changing Climates***
11:15 am	Dr. Natalie van Doorn, Research Urban Ecologist, USFS Pacific Southwest Research Station, Albany, CA & Dr. Greg McPherson - ***Street Tree Remeasurements in Claremont and Santa Monica and the Urban Tree Database***
12:00 pm	***Lunch* (provided) & Tree ID Challenge- Students vs Professionals***
1:00 pm	Mr. Jeff Reimer, Technician, NRES - Cal Poly San Luis Obispo ***SelecTree Nursery Connection - Closing the Loop***
1:30 pm	***A Conversation about Southern California Pests,*** Dr. John Kabashima
2:15 pm	***Break***
2:30 pm	Dr. James Downer, UC Cooperative Extension, Ventura County, Dr. Greg McPherson & Dr. Natalie van Doorn ***Climate Ready Trees - An Update for Southern California***
3:00pm	***Wrap up/Drawing/CEUs*** ***Gardens Walk -*** Grab a colleague and take a walk in the Gardens Access to the Gardens is included with symposium registration.

****A limited number of table top exhibits are available. Fee is $200.00 plus event registration - contact STS for more information or to reserve a spot. Representatives are required to register for the event.***

COST OF REGISTRATION:
*****$25.00 discount for STS members***
$125.00 if postmarked by January 20, 2016
$155.00 after January 20, 2016 or at the door
$75.00 Student Discount Rate
~NO REFUNDS~

ONLINE REGISTRATION IS AVAILABLE @ WWW.STREETTREESEMINAR.COM

WESTERN TREE MANAGEMENT Symposium