Crowning Achievements

Research Results on Measuring Tree Vitality

In a world of limited resources, it is useful to be able to quickly and objectively predict the vitality (health) of trees so that resources are only spent on those that require care. Over time, greater knowledge of methods for measuring tree vitality should lead to improved management of mature trees.

In the study, “A novel way of measuring vitality in mature urban trees,” Dr. Denise Johnstone (University of Melbourne) tested a method for assessing tree vitality that had not yet been used on urban trees – measuring bark fluorescence. Bark and leaf fluorescence of Morton Bay figs (Ficus macrophylla), Plane trees (Platanus xacerifolia), and Chinese elms (Ulmus parvifolia) were compared with an urban visual vitality index. Predawn water potentials were compared with the urban visual vitality index as a way of determining the cause of physiological stress in the plants as well.

Results were mixed, finding a statistically significant relationship between bark chlorophyll fluorescence and the urban tree vitality index only among Chinese elms, and seeing a significant relationship between bark chlorophyll fluorescence and pre-dawn water potentials in Morton Bay figs and Plane trees but not Chinese elms. Thus, bark chlorophyll fluorescence may become a useful tool for tree vitality assessments, but further work needs to be undertaken to clarify and understand the responses of different species. Read detailed findings on this project and discover additional TREE Fund studies related to fluorescence on the Research Archive page of the TREE Fund website.

“Nature welcomes inquiry. Nature does not hide its work. Just seek, and you will find.”

- Alex L. Shigo
**Leading Thoughts**

By J. Eric Smith, TREE Fund President and CEO

My father was a career Marine Corps officer back in the days when “unaccompanied tours” (i.e. family members not included) were more the norm than the exception, often for long periods of time. During those times when he was overseas, my mother and I often lived with my grandparents in Ridgeland, South Carolina, in a small cinder block house that my grandfather had built himself. There were lots of cats and dogs around my grandparents’ house, along with an ill-tempered duck named Twiggy who lived on the roof and dive-bombed visitors, and an amazing (to me) tree, right smack in front of the door to the house.

It was a classic Low Country longleaf pine, and it was older than the house; I have pictures of my grandfather and uncle during its construction, and you can see that they tried to preserve as many of the existing trees on the lot as they could, even that one that crowded the front door stoop. And if that wasn’t inconvenient enough, my grandmother later planted wisteria around the tree, and its vines grew huge and thick, completely surrounding the bole of the pine — which is why I loved that tree so much as a little kid, because I could just pop out the front door, stumble over the root-buckled stairs, and use that knotted network of vines to climb to a favorite perch, high enough that I could even see Twiggy on the roof! Perfect!

I claimed that as my very favorite tree for much of my childhood and beyond. Of course, I know now that all the decisions my grandparents made about it were wrong — though they made them with good intentions, hoping for shade, pretty wisteria flowers, curb appeal, etc. The last time I was down that way, I drove by the old house and, not surprisingly, that tree and its choking vines were long, long gone. I suspect removal was an expensive and complicated job, given how knitted into the house that tree must have been when it finally wore out its welcome.

We all teach and preach “right tree, right place” when planting, but I suspect many of us might make the same sorts of mistakes my grandparents did when it comes to building around and in established urban forests, because at heart, we love our trees, and we want to save them all. This is why TREE Fund seeks to cover the full life cycle of trees in our cities when we award our wide spectrum of research grants, recognizing that with rigorous science behind us, we can make better decisions about what goes in, and what comes up, and when, and why.
Lead Donors

We are grateful to the following people and organizations who contributed $2,500+ to TREE Fund in May 2018. See the full list of 2018 Lead Donors who make our work possible at treefund.org/about/our-donors. Thank you!

- American Society of Landscape Architecture
- DeepRoot Green Infrastructure
- Ohio Chapter ISA
- SavATree
- Unitil Corporation
- Vermeer Corporation
- Weaver Leather

Tour des Trees Riders Need Your Help!

The 2018 Tour riders are doing the hard part pedaling 530 miles through Ohio, July 29 through August 4. Will you do the easy part – supporting their ride?

There’s no better time to donate than now. We’re celebrating the start of summer with a special incentive for donors. June 18 to 24 ONLY – every $50 gift to the Tour earns you a chance to win a Stretch Cambium Jacket, courtesy of Arborwear. Get the flexibility of a soft shell with the durability of a work coat. Donate for a chance to feel good about supporting tree research and education, and a chance to win.

The prize drawing will take place on June 27. Thank you for supporting the Tour and good luck!

Create Your Own Virtual Tour des Trees

Do you...
- Like cycling but less than 530 miles in a week?
- Have a conflict with this year’s Tour dates?
- Like other fitness activities more than cycling?
- Have a passion for urban trees and want to help them thrive?

Consider creating your own Virtual Tour! You decide the activity and amount you want to raise in support of TREE Fund. Learn more HERE and sign up HERE before August 4. Thank you!

Volunteer Spotlight: Paul Fletcher

TREE Fund is pleased to recognize Paul Fletcher, BCMA, RCA of Bartlett Tree Experts in our Volunteer Spotlight this month. Paul has been a TREE Fund Trustee since 2015 and currently chairs the Development Committee that oversees all fundraising and stewardship efforts for our organization. Due to Paul's championing, TREE Fund will be holding its December 2018 Trustee and Liaison Meeting, as well as hosting a Research Workshop, at the Bartlett Research Labs in Charlotte, NC. Paul and his wife, Kristin, have also chosen to spend their last two summers as Tour des Trees Event Team volunteers, and will be doing the same again this year. Thank you, Paul, for the many things you do for TREE Fund!

To suggest someone for the Spotlight, please contact Karen Lindell.
The Word on Webinars

Save the date for our next TREE Fund webinar on **August 23 at 12:00 p.m. (Central)**. Dr. Brian Kane of the University of Massachusetts, Amherst will speak on “Arboricultural Biomechanics” during this free one-hour program.

- Pre-registration is highly recommended and will open in late July.
- Earn 1.0 CEU from ISA, SAF, or NALP for the live broadcast.

Visit [treefund.org/webinars](http://treefund.org/webinars) to get more information, see upcoming webinars, and watch past broadcasts.

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TREE Fund is a 501(c)3 nonprofit whose mission is to support scientific discovery and dissemination of new knowledge in the fields of arboriculture and urban forestry.