



# Tree and Soil Research Fund Newsletter

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## More salt decline of trees planted in northern urban streetscapes

By James Urban, FASLA Urban Trees & Soils

The \$50 million renovation of Nicollet Mall in Minneapolis, MN, completed in 2018, experienced significant tree loss and decline after its first winter. Initial findings place much of the blame on salt. Recently published papers and research by Andrew Millward, PhD, of Ryerson University, looked in great detail at tree losses in several Toronto streetscape projects. This work was funded, in part, by TREE Fund and is likely applicable to design changes needed in Minneapolis.

The similarities of Nicollet Mall to Toronto's Bloor Street and Queens Quay tree losses suggest that landscape architects must pay greater attention to protecting the soil zones from salt intrusion, using the most salt resistant species, and including awareness of other issues observed in Millward's work. Millward showed that multiple factors beyond salt contribute to tree stress and loss. These included soil pH, sunlight, trees on beds vs small tree spaces, and physical damage. Millward further suggested that planting species with high salt tolerance, such as silver maple, honey locust, elm or Kentucky coffee tree would likely be a significant factor in tree success.



*Large amount of salt applied to sidewalk in preparation for large snow event.*

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Given the importance and cost of trees in high profile streetscape projects, landscape architects need to rethink how trees are incorporated into streetscapes in northern cities. It is unlikely that individual firms working at a project scale can find and test solutions. A group effort to use existing and further research to guide the design and then testing of new concepts across several large northern tier cities such as Minneapolis, Chicago, and Toronto is needed. Designers in this region cannot continue using current design concepts in the large number of



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# More salt decline of trees planted in northern urban streetscapes

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important development projects proposed on this region and must work together to find solutions.

This critical problem is an excellent example of needed research that could be supported by TREE Fund's Tree and Soil Research Fund once its endowment is secured. The needed effort would team design practitioners with academic researchers to develop new concepts that fit the design directions, economic and political constraints of future streetscapes.

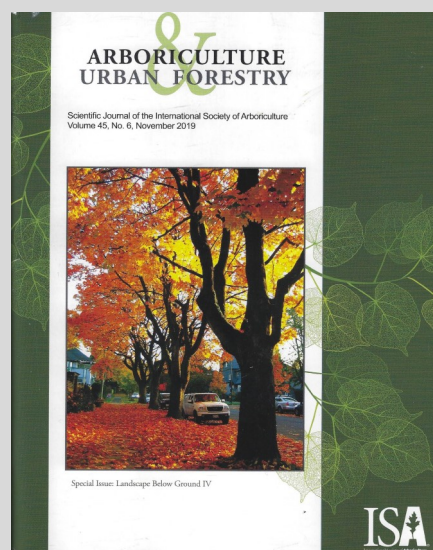
## Latest published soil and tree root research

In the fall of 2018, the The Morton Arboretum held an international symposium "The Landscape Below Ground IV" (LBG IV). This is the fourth LBG symposium series that started in 1994 and is considered the most significant conference series for people interested in urban soil issues. The proceedings will be published by the International Society of Arboriculture this spring. Many of the research papers presented were funded in part by TREE Fund. Landscape architects will

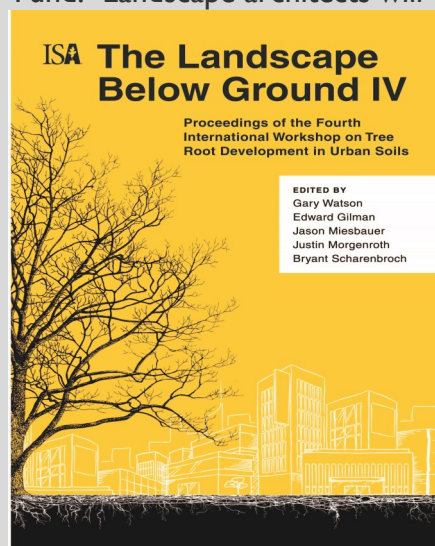
find the LBG IV proceedings summaries useful in their explorations into many of the most pressing questions related to soil, urban soil and the tree root/soil interface.

Ten of the papers presented at the conference were accepted in the peer-reviewed journal *Arboriculture & Urban Forestry*, the scientific journal of the International Society of Arboriculture (ISA), and published in November 2019, Volume 46, No. 6. The journal is available online for free to ISA members. These are the full research papers with documentation of the research means and methods, data and findings and conclusions and are useful for landscape architects wishing to dig deeper into the body of work or where scientific citations are needed.

Both publications can be purchased from the ISA bookstore. Currently they are



not in the ISA digital catalog and are a special order. The journal is \$10 for non ISA members. The LBG IV price has not yet been announced but is expected to be under \$20. To order, call Cassandra at ISA, (720) 328-1986. If you do not have the complete set of the four LBG proceedings, they are worth the investment and available from ISA. proceedings, they are worth the investment and available from ISA.



# 2020 Tour des Trees in Colorado

The 2020 TREE Fund Tour des Trees is scheduled for Colorado and covers 350 miles over five days of riding. Riders will arrive in Denver Aug. 29 for the team dinner and depart the next morning. The Tour arrives back in Denver on the afternoon of Sept. 3 after riding through some of the most spectacular mountain scenery in the world. Though the Tour mileage is shorter this year, it more than makes up for miles with three days of climbs to elevations between 8,000 and 9,000 feet. You may choose to register for partial or full tour, depending on your training and schedule.



In the 2019 Tour des Trees, riders raised more than \$385,000 for research in their third year of participation. Last year, our third year on the Tour des Trees, Team ASLA riders raised \$14,582 with \$14,003 designated specifically for the Tree and Soil Research Fund (TSR Fund) endowment. The TSR Fund endowment is currently \$74,744.



*Team ASLA 2019 members  
Kristopher May (l) and David Gorden (r).*

Team ASLA will again be fielding riders to support the Tree and Soil Research Fund endowment. Led by Kris May, ASLA, [kmay@hwcengineering.com](mailto:kmay@hwcengineering.com), Team ASLA hopes to see landscape architects riding not only from Colorado but the rest of the US and Canada. Team ASLA is a project of the Indiana Chapter of the ASLA. Registration is now open at <https://treefund.org/tourdestrees>.

Since the Tour has a maximum rider cap, be sure to register soon!

Please note that this is not a request from the ASLA.  
This fundraising effort is solely from TREE Fund, a 501(c)3 non-profit organization.  
For inquiries contact [treefund@treefund.org](mailto:treefund@treefund.org) or visit [www.treefund.org](http://www.treefund.org).

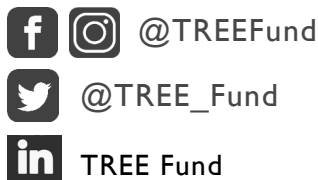
## Contact Us:

### Tree Research and Education Endowment (TREE) Fund

552 S. Washington Street  
Suite 109  
Naperville, IL 60540  
(630) 369-8300  
[treefund@treefund.org](mailto:treefund@treefund.org)

Connect with us online at  
[treefund.org](http://treefund.org) and on social media:

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