Tree Canopy Conference 2024: Unseen | Friday, October 18

The 11th Annual Tree Canopy Conference

The Tree Canopy Conference is an annual symposium that brings together a variety of green industry professionals and other stakeholders who work with and care about our region's urban forest. Conference participants will further their knowledge, connect with others in the industry, and gain continuing education units towards their credentials.

This year's Conference will include six presentations by speakers who will explore the unseen elements of our urban forest. While some parts of trees and the green industry are visible, others are underground or less easily observed – our speakers at the 11th Annual Tree Canopy Conference will dive into some of these topics, including soils, fungi, root systems, dendrochronology, trees and the air, the social dimensions of urban forestry, and more.
The Conference will be held on Friday, October 18, 2024, from 9:00 AM – 4:30 PM at Haverford College in the Stokes Hall Auditorium and is a partnership between the Morris Arboretum & Gardens and Haverford College Arboretum.

This program has been awarded 4.75 ISA CEUs for Certified Arborists and Municipal Specialists, 5 LA CES CEUs for Landscape Architects, and has been submitted for LTE/ LTCO CEUs from the NJ Board of Tree Experts.

7:45 - 8:45 am: Optional Earlybird Tour

Introduction to Mushroom Hunting, Philadelphia Mycology Club

Join the Philadelphia Mycology Club on a pre-conference stroll around campus to hunt for fungi. We will talk about how to identify the mushrooms we find and the roles they are playing in the ecosystem around us

9:00 am: WELCOME

- Introduction to College: Claudia Kent, Haverford College Arboretum
- Introduction to the Conference: Jason Lubar, Morris Arboretum & Gardens

9:10 - 10:00 am: Session 1

Tree and Soil Relationships

Bruce Neary, Owner, BCN Horticultural Services

If you don't know the science, your soil will suffer. In this talk, Bruce Neary will take the mystery out of soil science. Bruce will cover the interactions and associations that trees have with those organisms which inhabit the soil. The interdependence is vital for the health of the tree. He'll discuss how to identify and correct soil conditions that create problems for trees and explain the soil's physical and biological relationship to tree growth.

Bruce Neary is the owner of BCN Horticultural Services, where he has provided consulting services to landscape architects, contractors, developers, garden centers, nurseries, educators, and the public since 1994. Regarded as an industry expert, Bruce has written several articles for *The Landscape Publication, Grounds Maintenance Magazine*, and the *American Nurseryman*. Likewise, he has been a horticultural lecturer at Barlow Flower Farm and for other landscape organizations for more than 30 years. Bruce is a member of the Pennsylvania and American Horticultural Societies, Metro Hort Group, and the Perennial Plant Association. He received his BA in Agronomy from Rutgers University and his master's degree in Horticultural Sciences from Texas A&M.

10:00 - 10:20 am: BREAK

10:20 - 11:10 am: Session 2
Reading the Land through Ancient Climate Change:
Mid-Atlantic Landscapes and Habitats
Mark Demitroff, PhD, Historian

Pleistocene climate change profoundly influenced the character of the flora that we cherish today. Local ecosystems and the native plants that depend upon them owe much of their inheritance to cold, nonglacial processes that characterized much of the last 2.5 million years. We will reconstruct local past environments through geology, climatology, and plants to help develop a long-term view of ever-changing plant adaptation to better preserve and manage habitat in the future.

Mark Demitroff is a 'native' Pinelands natural historian and NJ Licensed Tree Expert who internationally publishes and lectures on regional ice-age landscapes. He received a BS in

Agricultural Sciences (Rutgers University), an MS in Geography, then completed coursework towards a PhD in Land-Surface Processes (University of Delaware). Mark teaches Pinelands physical and cultural geography at Stockton University.

11:10 am - 12:00 noon: Session 3
Tree Ring Analysis of Dominant Species from Mid-Atlantic Urban Forests
Kendall McCoach, Doctoral Candidate, University of Delaware

The eastern U.S. houses many small urban forests which are structurally complex, with dense canopies dominated by Oak, Red maple, Tulip poplar and American beech. These dominant species have differing inherent growth patterns and occur at different stages of succession. This presentation introduces dendrochronology methods used to analyze the past growth and climate response of fast-growing and slow-growing dominant species, to provide a broader understanding of growth in urban forests.

Kendall McCoach is a doctoral candidate at the University of Delaware studying urban forest tree growth and biomass. She utilizes dendrochronology to examine tree growth responses to past climatic fluctuations. Using Bayesian state-space modelling techniques, she combines data regarding annual tree growth and tree size to estimate urban forest biomass.

12:00 noon - 1:30 pm: Lunch and Tours

1:30 pm - 2:20 pm: Session 4
Stories of Greening: The Women Building Philadelphia's Green Spaces
Elizabeth Riedman, PhD, Urban Geographer

In Philadelphia, women have a long history of contributing to the success of urban green spaces and programs related to maintaining parks, planting trees, and running community gardens since the late 1800's. While men have been traditionally recognized for their roles in developing urban green spaces, archival evidence and oral histories reveal the foundational contributions of women volunteers, in particular the labor of Black, Indigenous and People of Color (BIPOC) women whose stories are largely missing from the archive. This talk will consider the often-invisible role of women in the creation

and maintenance of green spaces, sharing stories from both the archive and oral history interviews today.

Liz Riedman is a feminist urban geographer who specializes in qualitative research, with a focus on urban greening initiatives and volunteer labor. She received her master's from Wayne State University in Anthropology and PhD in Geography and Urban Studies at Temple University. Currently she is postdoctoral researcher at University of California, Los Angeles, working with the Forest Service to assess tree management and maintenance strategies across various California schools.

2:20 pm - 2:40 pm: BREAK

2:40 pm - 3:40 pm: Session 5
Uncovering the Unseen Benefits and Risks of Trees for Respiratory Health
Dr. Anneclaire De Roos, PhD, Epidemiologist

Emerging evidence suggests improved respiratory health among people living in areas with more trees, but mechanisms of these health benefits are not well-described. Valid 'unseen' mechanisms include interception of air pollutants, temperature moderation, and stormwater control. But respiratory harms from trees are also known, such as seasonal pollen and production of ozone and volatile organic compounds. The speaker will present findings from her own research suggesting net benefits of trees for pediatric asthma.

Dr. Anneclaire De Roos is an epidemiologist with extensive experience studying chemical, physical, and biological exposures as risk factors for health outcomes including cancer, asthma, and infectious illness. Exposure settings include the workplace (pesticides, solvents) and residential communities (pollution). Current projects focus on the nexus between the natural environment and human health – such as risks from extreme weather and potential benefits from greenspace. At Drexel University, Dr. De Roos teaches classes in epidemiology and risk assessment.

3:40 pm - 4:30 pm: Session 6

Rarely Planted Urban Trees for Philadelphia's Future

Jehane Samaha, National Urban Nursery Specialist, US Forest Service

To maintain healthy urban green spaces in the face of climate change, pest outbreaks, and everyday urban stressors, it is crucial to plant a wide diversity of tough climate-ready trees. However, it can be easy for nurseries and urban foresters to grow and plant old favorite trees that have sold and survived in the past. We'll discuss barriers to testing new or underutilized trees, and solutions to increase diversity while mitigating risk. Plus, we will consider some great rarely planted trees for Philadelphia's future.

Jehane Samaha is the National Urban Nursery Specialist with the US Forest Service. She develops trainings and networking for both urban foresters and nursery growers to improve tree stock quality, enhance connectivity in the urban nursery pipeline, and promote climate adaptive genetics for urban trees. Jehane is based in Philadelphia, serves on the board of UC Green, and previously worked at PHS and the Morris Arboretum & Gardens. She is an ISA certified municipal arborist and completed a master's thesis on street tree species selection.

4:30 pm: CLOSING REMARKS