

Protecting Threatened Natural Forests in Cities



Problem Setting

With 700,000 acres of natural forested areas nestled in our nation's cities, the urban forest is a precious—yet overlooked—public asset. Urban forests provide a safe haven for local wildlife, offer respite from urban heat islands and act as vital carbon sinks. Despite their diverse benefits, urban forests remain critically undervalued. In a warming world, how can we harness the potential of urban forests and best preserve these crucial spaces? This panel offers diverse perspectives from city and federal government officials, as well as from practitioners in the nonprofit sphere.

Speakers: Richard Hallet, USDA Forest Service; Clara Pregitzer, Natural Areas Conservancy; Amy Witt, Forest Park Forever; Kelli Ondracek, City of Houston, Texas.

Moderated by

Professor Mark Bradford.

Key Takeaways

1. URBAN FORESTS ARE UNDERVALUED

All four panelists agreed that the benefits of urban forests are underestimated. Clara Pregitzer stressed that while urban forests make up only 5.5% of New York City's total land area, they account for 70% of all the city's trees. NYC's urban forests are also on average 4 - 6 °F cooler than surrounding landscapes. Kelli Ondracek emphasized that her work with Houston's Park Authority is driven by efforts to protect its vast tracts of wild parkland, which are home to valuable coastal prairie habitats. Protecting our cities' remaining vibrant pockets of biodiversity from development is more important than ever.

2. RE-IMAGINE MANAGEMENT TECHNIQUES

Different landscapes require different management approaches. Amy Witt shared Forest Park Forever's innovative urban forestry management practices, which respond to the unique ecology of St Louis. Operating a prescribed burn regime, rangers systematically set fire to certain parts of the city park to eliminate invasives and encourage much-needed growth in the understory. This makes for a more robust network of trees and shrubbery, resulting in a more diverse ecosystem and enjoyable park experience.

3. BUILD LONGEVITY THROUGH INCLUSIVITY

Few places carry as much potential to inspire stewardship as urban forests. Witt and Pregitzer stressed that gaining community support requires ongoing collaboration at the local level. Alongside this engagement, forest management efforts must maintain clear and constant communication with local residents. Witt and Ondracek called for transparency throughout the process of testing new initiatives, and they shared how signage and conversations with the public helped their own projects succeed.

4. UNCERTAINTY LEADS TO INNOVATION

It is unclear how urban forests will respond to a changing climate. This presents opportunities for innovation. Richard Hallet shared insights from his oak project, an ongoing study that involves the collaboration of urban foresters, citizen scientists and researchers from cities along the East Coast. The team has gathered over 100,000 acorns along six different seed zones and has since planted 9,000 saplings across four cities and three arboretums. The growth rates of these transplanted trees will be monitored, which will shed insight into how the tree species might respond to future climate conditions.

Implementation Examples

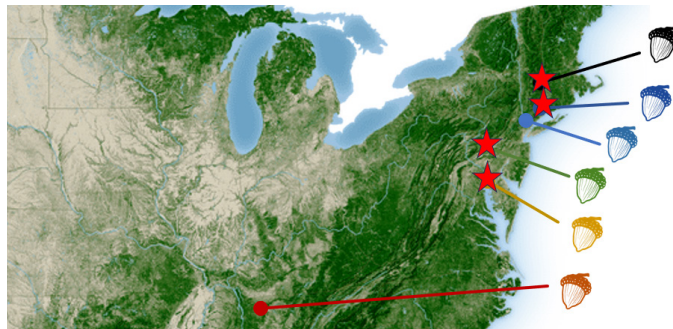
HOUSTON'S NATURE PRESERVE ORDINANCE



Park trails allow for residents to connect with nature whilst minimizing damage to the local environment. Source: Ondracek Conference Presentation 2023.

Mayor Vallo designed and implemented the 10,000 Trees Initiative in Bratislava, with a focus on improving climate resilience and connecting to communities on the ground. Since 2019, the City of Bratislava has planted 25,390 trees and 25,263 bushes. A unique element of the initiative is that the municipality pays the State forestry enterprise to reduce commercial logging in forests surrounding Bratislava. This initiative saves 5,000 mature trees per year, and the money paid is used to make these forests more accessible to residents.

NORTHEASTERN URBAN SILVICULTURE RESEARCH

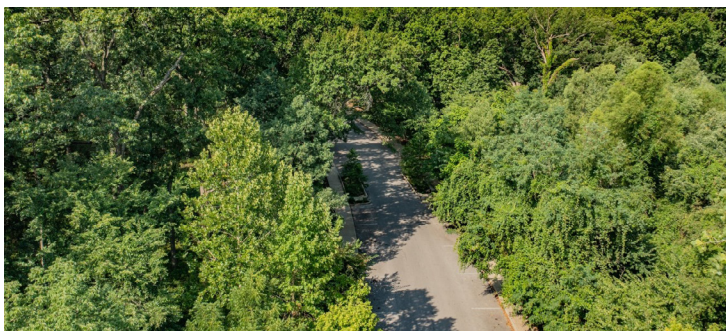


Locations from where 100,000 acorns were collected. Source: Hallet Conference Presentation 2023.

Cities around the world will have different climatic conditions in the future due to global warming. To make informed decisions on species selection, it is important to understand how tree species will respond. The multi-institutional oak project collaborative has nursed, tagged, and planted 9,000 saplings on sites throughout the East Coast. The saplings—grown out of harvested acorns across multiple latitudes—will provide a glimpse into how oak trees might respond to a changing climate.

PRIORITY ACTION: ADAPT MANAGEMENT TECHNIQUES TO SUIT LOCAL CONTEXTS

Urban foresters should seek to tailor silvicultural techniques to the unique ecological circumstances of their locality, whilst raising awareness about the importance of responsible forest management in their communities.



The left side has undergone a prescribed burn & shows a notable difference in growth. Source: Witt Conference Presentation 2023.

NEXT STEPS:

TO LEARN more about Houston's Nature Preserve Ordinance, tree-planting, and park acquisitions, contact naturalresources@houstontx.gov.

ACCESS the NAC's Forests in Cities free resource library at <https://fic.naturalareasnyc.org/>.

TO FOLLOW the work of Forest Park Forever in St Louis, visit <https://www.forestparkforever.org/>.

Watch the entire conference panel [online here](#).

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