

ANNUAL REPORT



Photo credits: Benjamin Auger, Evan Cantwell/Office of Sustainability & Cindy Smith

VISION

Communities driving resilient, local food production using ecologically-enriching & life-sustaining practices.

MISSION

To develop a replicable model for advancing food security, ecosystem services & sustainability learning.

WHAT IS THE FORAGERS' FOREST?

The Foragers' Forest is a **native food forest** established in Fall 2023 on Mason's Fairfax campus. The project was launched by Sarah Roth (MS 2024), Greenhouse & Gardens Program Manager Doni Nolan (BA 2014, PhD candidate), and Environmental Science & Policy Professor Dr. Dann Sklarew (PhD 2000). This project served as Sarah's master's project for her environmental science and policy degree program.

The project involved planting nearly 2,000 native plants (representing ~60 species) across 5,300 square feet. What sets this project apart from other food forests is our commitment to **restoring wildlife habitat**. All of our plants are native to Fairfax County, thus providing the most benefit to local wildlife.

What's more, Virginia has a rich diversity of edible native plants. Our groves include delectable favorites like **wild strawberries, blueberries, American hazelnuts, and American persimmons**.

Our planting style – evident in the tightly planted clusters of trees and shrubs – is adapted from a **reforestation method** developed by Japanese ecologist Dr. Akira Miyawaki. He found that close planting led to faster tree growth, quicker canopy closure, and higher tree survival rates compared to plantation-style planting.

Did you know the Foragers' Forest is a *Living Lab*?

We educate the Mason community about the value of native plants, their role in our ecosystems & how to restore degraded land. It's role as a "living lab" is to enhance learning & research.

YEAR 1 HIGHLIGHTS

A. SITE DEVELOPMENT & STEWARDSHIP

We coped with a changing climate. Between extreme heat and serious drought, the Foragers' Forest experienced a tough first summer. We kept the trees and shrubs alive through the drought by hand watering twice weekly for 4 months. We physically moved an estimated 21,000 pounds of water during this time! This was a stark reminder that our campus is being impacted by global climate change.

We adapted to hungry deer. White-tailed deer are a known threat to forest regeneration, and we felt that pressure through their persistent nibbling on our young trees/shrubs. While these deer are native to the region, declines in their natural predators have resulted in deer populations far exceeding the environment's carrying capacity. We addressed this challenge by protecting our trees/shrubs with caging. The cages will remain in place until the plants grow tall enough to withstand deer browse.

We welcomed a new team member. Robert Kupczak joined the Greenhouse & Gardens staff in Summer 2024. He has supported the Foragers' Forest by watering, installing tree protection, and leading volunteer events. Robert's support has been pivotal during this busy year!

B. LEARNING & SERVICE

We welcomed our first student intern. We hired Morgan Myers in Spring 2024 with funding from Mason's Institute for a Sustainable Earth (Living Lab Grant). Morgan is a Mason undergraduate studying sustainable food and agriculture. She helped us collect field data, conduct literature research, and install tree/shrub protection.

We established Mason's first partnership with the Fairfax Master Naturalists. The Foragers' Forest was approved as a service hours-eligible project for the Fairfax Chapter of the Virginia Master Naturalists (a community-based natural resources volunteer program). Our aim is to bring students and community members together in stewarding the Foragers' Forest, while promoting intergenerational learning and relationship building.

We engaged the Mason community in the science & practice of land management. We worked with 72 volunteers at multiple planting and stewardship events, including the memorable planting and return of American Chestnuts to campus. This amounted to 160 hours of hands-on learning and field experience.



We partnered with Mason professors to incorporate the Foragers' Forest in their curricula. Dr. Sudha Balajapalli's mammalogy class (EVPP 438) reviewed camera trap footage from the Foragers' Forest and surrounding areas to identify mammal species living on campus (see above photo of white-tailed deer). Dr. Cindy Smith used the Foragers' Forest in her insect diversity lab (EVPP 302) to compare insect populations in native versus non-native plant dominated landscapes.

C. OUTREACH



We led a tour for Howard University faculty...Dr. Lemir Teron (Associate Professor, Dept. of Earth, Environment & Equity) and Dr. Janelle Burke (Director of Interdisciplinary Environmental Studies Program), as well as Howard undergraduate student Camryn Curtis. Dr. Teron supports the disbursement of grant funding with the Mid-Atlantic Environmental Justice Fund and was interested in the reforestation aspects of our project.

D. SCIENCE

We're participating in the restoration of an iconic tree, the American Chestnut.

American chestnuts have been declared functionally extinct in the wild following a blight fungus that was introduced to the US in the early 20th century. The blight eventually killed over 4 billion trees. The American Chestnut Foundation (TACF) has been breeding blight-resistant trees in an effort to restore this important species. In October 2024, together with students and community volunteers, we planted 5 hybrid chestnut trees obtained from TACF into the Foragers' Forest.



We launched a biodiversity citizen science project. In Fall 2024, we launched an iNaturalist project to collect wildlife observations in the Foragers' Forest. One of the most notable observations was of Monarch butterflies (see above photo). Monarchs were officially proposed for Endangered Species Act protection in December 2024 due to dramatic population declines (including an 80% decline in the eastern US). Seven plant species in the Foragers' Forest provide nectar food for monarchs, including wild plum, black-eyed Susan, and blue mistflower.

We worked with Davey Tree to improve the soil. Before the establishment of the Foragers' Forest, nine student apartment buildings stood on this land from 1977-2018. This development legacy can be seen in the soil today, e.g., the high degree of compaction that hinders tree root growth. In December 2024, we worked with Davey Tree to perform vertical mulching across the Foragers' Forest. They used an AirSpade to aerate the soil and open dozens of 18-inch-deep holes in the soil that were backfilled with compost. We expect this to improve water infiltration and tree root growth in future years.

We tested our soil to ensure health & safety. Given the history of the land the Foragers' Forest is planted on, we worked with Mason's Environment, Health and Safety team to test the soil for contaminants. They found the soil to be safe for growing food.

FUTURE WORK (YEAR 2+)

Continue to nurture the health of this young food forest

- Monitor water and nutrient requirements
- Monitor deer impacts and other threats to the site

Expand educational opportunities

- Install interpretive signage by Summer 2025
- Lead "Forage to Fork" events showcasing edible favorites
- Collaborate with Mason professors to develop a monitoring program to annually collect baseline data on ecological health
- Engage professors to incorporate the site into diverse curriculum offerings, including in the sciences and humanities

Grow community outreach

- Continue to cultivate citizen science partnerships (e.g., Master Naturalists and iNaturalist).
- Engage individuals, community organizations, learning institutions, and local governments to explore and replicate the Foragers' Forest

Interested in touring the Foragers' Forest?

Email Sarah Roth (sroth8@gmu.edu), Dr. Dann Sklarew (dsklarew@gmu.edu), and Doni Nolan (dnolan6@gmu.edu) with your request.

Thank you to our generous funders & supporters!

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