

Expeditions on the Way

New mobile tour application set to highlight Arboretum plants and exploration

Amy Heuer, Visitor Engagement Fellow

Through a generous donation from a friend of the Arnold Arboretum, **Expeditions**—a new mobile tour application created by staff—is set to launch in spring 2020. Showcasing more than sixty plants throughout the Arboretum’s 281 acres, *Expeditions* covers history, plant conservation, and horticulture, helping visitors navigate the landscape as well as learn more about the Arboretum and its legacy of plant exploration and study through text, imagery, and audio.

The app highlights a spectrum of narratives from plant collecting, to children’s education, to science, demonstrating the universal and lifelong connection between humans and plants. Along with informative audio segments, there are more than 50 interviews with Arboretum staff, sharing their professional and personal interactions with the Arboretum’s collections. Scheduled to be shared publicly on Lilac Sunday 2020, *Expeditions* will be available as a free download, and also will be accessible on an internet browser. The app will also be translated into Spanish and Mandarin.

Here is a sneak preview of some of the rich information provided by the app for one of the stops on the *Expeditions* tour: *Cercidiphyllum japonicum* (katsura tree). ↪



Stop: 104

Plant ID: 882*A

Scientific Name: *Cercidiphyllum japonicum*

Common Name(s): Katsura

Native to Japan and China, katsura has distinct male and female trees. Each tree flowers in spring (female trees grow red flowers, and male trees grow yellow flowers). Heart-shaped leaves of both trees transition from purple-green in summer to yellow in fall, when they emit a sweet, cotton candy-like smell. In winter, after the leaves have dropped, the distinctive seed pods on the female trees take center stage.



Danny Schissler



Kyle Port

Dig Deeper

Learn more about species with male and female trees.

Species with separate female and male trees are called “dioecious,” which comes from the Ancient Greek for “two houses.” Less than 10 percent of Earth’s plants are dioecious—most have flowers with both female and male parts on the same plant.



William (Ned) Friedman



Kyle Port

Dig deeper into the diversity of dioecious plants at the Arboretum—including willows, ginkgos, and spicebushes—in online “Posts from the Collections” by Arboretum Director William (Ned) Friedman.



William (Ned) Friedman

“Exploring for katsura”

A story shared by Michael Dosmann, Keeper of the Living Collections

The Arboretum’s most celebrated plant collector from the early twentieth century is Ernest Wilson. Between 1899 and 1922, Wilson spent years on expeditions to countries worldwide, collecting plant material and herbarium vouchers and taking photographs with a large camera. He is responsible for introducing an estimated 2,000 species into Western cultivation. At the Arboretum, he eventually served as “Keeper,” a title acknowledging his prolific contributions to the plant sciences and profound impact on the Arboretum’s collections.

In 1910, Wilson led an expedition to China. Deep in Sichuan Province, he came upon a katsura with a diameter of 17.5 feet—a massive specimen, and the first Wilson had ever seen with fruit. He memorialized the discovery with a photo, posing his fellow plant collectors in front of the tree for scale.

Over a century later, Arboretum staff recreated the scene at the very same tree. Plant collectors from the Arboretum and several other institutions went to China as part of the North America–China Plant Exploration Consortium—called NACPEC—a joint initiative between botanical institutions across continents to increase biodiversity and conservation of plants. In the intervening years, the tree had flourished as a forest grew in around it, growing 40 feet taller.



Ernest Henry Wilson, 1910, Arnold Arboretum Archives



Jonathan Shaw, 2017, Harvard Magazine

[[Walkways, from page 11](#)] horticulturist Gary Koller wrote a desperate memo to Peter Ashton exclaiming that “the volume of pedestrian traffic has increased to the point where the grass seedlings will be stomped to death before they have time to become well established.” Visitor foot traffic increased the compaction of the soil, leading to erosion on either sides of the paths and standing water throughout the year. As a result, visitors would avoid the paths all together, walking instead through the dry meadow areas, creating new desire lines and trampling the wildflowers growing there. Koller recommended covering paths with gravel, and mowing the grass regularly to remove invasive species.

But the story doesn’t end there. Since 2015, the Arboretum has revisited the issue of how to reestablish wildflowers and native plants in the landscape while expanding foot access across the entire Arboretum. On the recommendation of the Arboretum’s Soils Advisory Committee, horticulture staff developed several “no-mow” and “reduced-mow” areas where the spontaneous flora is allowed to flourish. The edges of these areas are well defined and change throughout the year based on access needs, weed presence, wildlife timing, and aesthetics. When weedy species pop-up at low levels within the

no-mow areas, horticultural staffers manually remove the unwanted plants.

Finding a happy medium between the naturalistic grass pathways of the early twentieth century and the gravel paths of the 1980s, horticulture staff began laying out a series of mulched woodchip paths through areas of reduced mowing. These paths help prevent soil compaction by limiting the use of mowers, guiding visitors, staff and equipment along specific routes, and directing traffic away from the root zones of trees. The mulch also allows water to both flow off the path and seep into the ground, preventing the mud and puddles that plagued the earlier efforts.

While a few, less-trafficked spots in the Arboretum remain where grass paths could be both appropriate and beautiful, our new mulched paths have proven extremely successful and popular for visitors, and once again allow visitors to “wind invitingly through waving meadows, grassy valleys...and glens,” as reported in the 1912 *Globe* article. The Paths Committee continues its work to develop and refine how we all interact with the Arboretum landscape and the magnificent plants growing here. We hope your next visit includes some quality time for exploration along these new pathways for discovery. 