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The Champion of the Trees

Have you ever noticed a sign next to a tree on the Bethesda campus designating it as a “champion tree?” These champion trees are defined as the largest known tree of its species within a defined geographic area.¹ For example, the [Montgomery County Forestry Board](#) designates a champion tree for each species within the county. As you might imagine, these trees are rare, with only a few hundred trees spread throughout Montgomery County.

Champion trees come in all shapes and sizes. Although you may expect every champion tree to be very large, some tree species simply do not grow to behemoth size. For example, the champion pawpaw tree for Montgomery County measures only 10 inches in diameter across its trunk.¹ Conversely, the champion American sycamore tree measures more than eight feet in diameter across its trunk!¹ Champion trees are not determined based solely on height or width. Prospective trees are awarded points based on the following formula:¹

Trunk Circumference (inches) + Height (feet) + ¼ Average Crown Spread (feet) = Total Points

Due to this formula, trees may have quite different structures but still score similarly in points! This helps recognize well-rounded trees too, rather than just the tallest or thickest. A tree may also be designated a co-champion if it is within 5 points of the highest scoring tree of the species.¹

The NIH Bethesda campus is currently home to six Montgomery County champion trees! If you would like to visit these trees, please visit our [“Take Action” article](#) for a map! The species of the champion trees on campus are: Chinese Flame Tree (*Koelreutaria bipinnata*), Japanese Pagoda Tree (*Styphnolobium japonicum*), Carolina Hemlock (*Tsuga caroliniana*), Allegheny Chinkapin (*Castanea pumila*), Golden Larch (*Pseudolarix amabilis*) and Black Willow (*Salix nigra*). Of these, the latter four trees are also state champion trees, the largest of their species in all of Maryland! The Bethesda campus is also home to a former-champion tree, a Japanese Zelkova tree, that was surpassed by another tree located in Garrett Park, MD in 2017. This other tree was confirmed to be the national champion, the largest Japanese Zelkova tree in the country! This Zelkova tree had likely been large enough to be the champion tree for many years, however its status could not be confirmed until it was nominated and measured. There could be more national champion trees growing in our neighborhoods that have yet to be identified! There are two trees on the Bethesda campus that have potential to become champion trees in the near future if they continue to grow: a Saucer Magnolia tree near Building 16 and a Maidenhair tree across the street from Building 37.

Champion trees are important for a number of reasons. First and foremost, these trees filter air and water, sequester carbon, provide habitats for wildlife, decrease stormwater erosion and create heat relief through shade.² These benefits are provided by all trees, but as some of the largest trees in the area, champion trees have the potential to provide these benefits to a greater degree than an average tree. Champion trees also increase public awareness of the many varieties of tree species. Many species, like the variants of oak, pine and maple trees, are commonly known. However, there are over 120 species of native trees growing in Maryland!³ Champion trees help draw attention to lesser-known species and increase public knowledge of trees. Champion trees also make interesting tourist attractions, if located on public land. A list of all current champion trees is available on the [Montgomery County DEP website](#). Plan a visit to a champion tree for your next outdoor excursion!



TAKE ACTION

Visit Your Local Champion Trees

There are hundreds of Champion trees in Montgomery County, including six on the Bethesda campus. Inside this article, we have included a map of these tree locations so you can visit them for yourselves!

[LEARN MORE](#)



SPOTLIGHT

FEMP Award for the Thermal Energy Storage System (TESS)

The Division of Technical Resources, within the Office of Research Facilities, has constructed a thermal energy storage tank to produce and distribute chilled water more efficiently on the Bethesda campus.

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NEMS TRAINING

Did you know? There are likely trees even bigger than the current Champions that haven't been identified. [Nominate a tree in your neighborhood!](#) To learn more about environmental stewardship at the NIH, please visit the [NEMS Training webpage](#) to view a short (20 minute) NIH environmental awareness training video.