

Bigtooth Aspen tale for Big Ole Tree Contest

"This Bigtooth Aspen's tale all started with a small favor and a little Butterfly Garden in Abbottsford's HOA.

My neighbor, Sara Knestruck, inspired a love of Monarch butterflies when asking me for a small favor. She was leaving town for a week and needed help releasing some Monarchs that she had been protecting inside a mesh enclosure on her back patio. My daughter, Grace, and six members of Hillsboro High School's weightlifting team were at our house that day, and they all marveled at the caterpillars, butterflies, and the gold "bling" on the milky green chrysalides. They had a great time releasing those Monarch butterflies and bonded over such a unique and special experience. Grace and her friends, Kyra Harmon, Juwan Lwangmianga, and Paa Mensah are all close friends to this day. I realized that day that something as small and fragile as a butterfly could inspire a lasting curiosity and camaraderie for people of all ages. My little yard became a testing ground for different butterfly host plants. Some were successful; some were not. I made lots of mistakes and tried my best to learn from them. Eventually, I proposed the addition of a Butterfly Garden in Abbottsford. The HOA approved that request. The garden was installed in May, 2021 just as the world was awakening from their long-suppressed drive for social connection after Covid. It quickly became a place to gather, paint, and photograph; to share final memories and say one last goodbye to a four-legged friend; to read a book; to share time with friends; and for children of all ages to explore and discover.

In August, 2021 Georgeanne Chapman visited a friend and Abbottsford resident, Donna Nicely, in the heart of Green Hills. They strolled to the Butterfly Garden that fellow neighbors and I planted in May, 2021 next to a pea-gravel drainage channel in Abbottsford's 3rd median. Georgeanne asked Donna to introduce her to the woman who started the garden. That's when I met Georgeanne; she changed my life forever by igniting a passion for removing invasive plants and restoring native plants to our community. Georgeanne served as the first Executive Director of Friends of Warner Parks from February, 1989 to 1994. I had no idea the chain of events that would follow her request for me to help plant a pollinator garden in Green Hills Park (GHP). Since then, Georgeanne and I have joined Lora Fox on the Board of Friends of Green Hills Park and have led the revitalization efforts at GHP. We coordinate the removal of invasive species and gather volunteers to help plant natives in their place. Our goal is to help others visualize, enjoy, and appreciate a truly native Nashville ecosystem in the heart of Green Hills.

Many community volunteers have helped clear invasives and plant natives in GHP, including students from TSU's architectural engineering program, Weed Wrangle®, Junior League, The Garden Club of Nashville, Lipscomb University students, the Management team at the Mall of Green Hills, and many other individual volunteers, most notably Ryan Bivin, Dr. Marcus Owen, and Richard Hitt. In 2023, Invasive Plant Control, Inc. co-founder, Steve Manning, sent a team of professionals to remove the ironically named, invasive tree called "Tree of Heaven" (*Ailanthus altissima*) along with many other invasive species from over 26,000 sq ft of Green Hills Park. Thirty years prior, Georgeanne had hired Steve to remove invasive plants from Warner Parks. He loved that work so much that he and Lee Patrick made it into a successful and vital business. Steve showed his appreciation for Georgeanne by donating his

time in Green Hills Park. Several local organizations have provided grants to Friends of Green Hills Park as well, including The Metro Tree Bank, The Community Foundation of Middle Tennessee, The Centennial Park Conservancy, The Garden Club of Nashville, and The Nashville Predators Foundation. We have such an amazing community here in Nashville, and we thank you all for your continued support of our little 12-acre park just west of JT Moore Middle School.

In fall of 2021, I searched the National Wildlife Federation's Native Plant Finder database to learn which of Nashville's native trees would provide the most support for pollinators in the park. I entered the 37215 zip code for Green Hills and was surprised to find the *Populus* genus listed as the 7th most valuable native tree for wildlife. In Green Hills, 200 species of lepidoptera (moths and butterflies) use the two trees listed in the *Populus* genus as the host plant for their caterpillars. Sixteen of our 20 songbird families feed their young primarily caterpillars, so the trees that host those caterpillars directly impact the food accessibility of our local bird populations. The two *Populus* trees are the Eastern Cottonwood (*Populus deltoides*), which are prevalent in our area, and the Bigtooth Aspen (*Populus grandidentata*), which are extremely rare. Cottonwoods can be seen growing along the side of the interstate and almost everywhere you see a large tree with leaves that flutter right-side up and upside-down in the slightest breeze. That flip-flopping is due to the flat petiole or leaf stem typical of the *Populus* genus. Bigtooth Aspen roots can survive for over 125 years and may be hiding beneath some of the turf that comprises most of our manicured lawns. Their roots merely need exposure to sunlight for new trees to emerge from their buried roots.

As a Nashville native myself, I couldn't believe we had a native aspen in Nashville. That had to be a mistake, right? Aspens in Nashville seemed highly unlikely. In disbelief, I reached out to Richard Hitt, the President of the Middle TN chapter of WildOnes, a national native plant advocacy group. After some consultations with local botanists and tree experts, Richard confirmed that Bigtooth Aspens are actually native to middle TN but are very rarely found since TN is on the very southern end of its growing range. Since then, botanists Dwayne Estes and Mason Brock of Southeastern Grasslands Institute, SGI, have helped Richard and me learn of several locations of Bigtooth Aspen historically documented throughout middle TN. Richard and I have confirmed several of these populations since our first unsuccessful expedition to Ridgetop, TN with botanist Milo Pyne in spring, 2022. Milo had first recorded the existence of Bigtooth Aspens in Ridgetop, TN in 1986, but we were not able to relocate the trees. Residential and commercial development likely removed and laid turf grass or asphalt on top of their former location. My intention is not to disparage development in any way, but instead encourage us to learn to share some of our cultivated spaces with our natural treasures. Since that first exploratory aspen-hunting adventure, Milo, Richard, and I have been successful in finding a magnificent stand of Bigtooth Aspens beside gravel road on a ridgetop in Gassaway, TN. Richard and I have responsibly harvested root cuttings and saplings from private properties for the purpose of preserving these native aspens. Invasive plant encroachment is often a problem where we find these aspens. We try to remove as many as we can and will continue monitoring those locations. Our long-term goal is for mixed groves of male and female aspens to generate viable seeds. Those seeds can then be shared with local growers for eventual distribution and replanting in middle Tennessee.

Richard and I only had one problem...where would we grow dozens of root cuttings? We had insufficient space on our back patio and backyard to grow them. That's when Jennifer Smith, Metro Public Works Horticulturist, suggested that the Davidson County Sheriff's Office (DCSO) might be able to help. Paul Mulloy, Director of Programs for DCSO, runs their Horticulture Program, which enables inmates to learn valuable horticulture skills as part of the vocational rehabilitation program at the detention facility. The detention facility has above-ground, gravel grow beds that are watered in regular intervals. This supports the success of the trees growing in their gravel beds, just as the Horticulture Program nurtures the men in the care of the DCSO. The Horticulture Program has helped to decrease the rate of recidivism to around 7%. The national average is closer to 44%. Paul Mulloy and his team of horticulturists have successfully grown aspen trees and have offered to add additional grow beds for more cuttings in the future. We thank them for their help. In May, 2024, the Sertoma Club of Nashville honored Paul Mulloy with the **SERVICE TO MANKIND** Award.

Richard and I will continue to collect root cuttings from multiple populations around middle TN in hopes of realizing our goal of preserving these important trees. For now, two small groves of Bigtooth Aspens have been established. One is in Abbottsford at the end of Kensington Park close to the intersection of Abbott Martin and Vailwood. The Bigtooth Aspen tree I am nominating is in that grove. That 10' tall tree was planted in March, 2023. It was just a young sapling growing from an 18" root segment taken from an 80' tall Bigtooth Aspen on Ronnie and Sheryl Eades' property in Tennessee City. That huge Bigtooth Aspen was by far the largest one Richard and I have found. On March 24th, 2023 that largest Bigtooth Aspen fell into the second largest, 60' tall aspen on the Eades' property. With all of the other available trees in their forested front yard, THAT was the tree it had to fall into?! Sadly, the 80' tall aspen could not be saved. Fortunately, it gave Richard and I a unique opportunity to harvest many small, feeder roots that had been exposed by the uprooted aspen. Jonathan Sullivan of Arbor Best Tree Service cut the larger aspen near the ground. He successfully winched the smaller 60' aspen back to vertical and tethered it to a nearby healthy Oak tree. It seems poetic that the injured Bigtooth Aspen was supported by an Oak tree, which happens to be the #1 keystone tree in North America, hosting 432 lepidoptera in middle TN. It has recovered nicely over the past year and a half. One of Ronnie & Sheryl Eades Bigtooth Aspens was just certified as the TN Champion Bigtooth Aspen. It has a height of 63.40,' a circumference of 35.04," and an average crown spread of 42.93' for a total of 141.37 points. Congratulations to Ronnie and Sheryl Eades!

Root cuttings from the Eades' fallen aspen were delivered to Paul Mulloy for his team to grow. We were hopeful, but unsure if they would grow. By the end of the first growing season, several of the aspen root cuttings had grown several feet tall. One larger root cutting grew 6' in as many months. When Paul told me how well they had grown, I had to see it for myself to truly believe it. Sorry, Paul, it just seemed impossible that they could grow 6' in a year from a root cutting. He wasn't exaggerating. It was clear that this Bigtooth Aspen experiment had great potential. All we need now is time, more root cuttings, saplings, and the DCSO gravel grow beds.

The other grove of six Bigtooth Aspens was planted in the Villages of Burton Hills (VBH)

just one week after March 27th, 2023 to honor Hallie Scruggs, Evelyn Dieckhaus, Will Kinney, Mike Hill, Cindy Peak, and Katherine Koonce and all of the families at the Covenant School. That memorial grove was planted to the north of the VBH pool area in a sunny location within sight of Covenant Presbyterian Church. The grove was planted by Green Hills Park volunteers, La Tisha Harmon, Ryan Bivin, and me, the day after I received a diagnosis of a rare cancer called Neuroendocrine Cancer. Even though it is stage 4, my doctors tell me that with periodic surgeries and future treatments, I should live a long life. There is even a potentially curative treatment in phase 2 clinical trials, so I feel extremely blessed and thankful. I have spent more time reading my Bible and appreciating the love and grace of Jesus Christ. This diagnosis won't keep me from trying to preserve the beloved Bigtooth Aspen trees. Let's all be grateful for each day and try to remember that, like the fallen Bigtooth Aspen and the root cuttings, sometimes tragedies can lead to new life, hope, community support and immense gratitude.

I am forever grateful for Abbottsford's little butterfly garden because it helped me connect with so many new friends, wonderful neighbors, and caring members of Nashville's community. However, the future of Abbottsford's Butterfly Garden is uncertain. A few neighbors dislike the butterfly garden, which can be found in the 3rd median as you enter the Abbottsford subdivision. They think it looks messy and doesn't fit with our "English Garden Aesthetic," even though most English Gardens have pollinator gardens now. They want that area returned to turf. Other neighbors love it and want it to remain in its current location. It has become a gathering place, a place of reflection, of sharing, and a place to appreciate little miracles that go unnoticed until we take time to sit quietly on a bench and notice. It will be interesting to follow the destiny of Abbottsford's little butterfly garden. I, for one, am quite literally rooting for the Butterfly Garden. After all, look at all the good that has come from it.

Thank you for considering the inclusion of this tree's story in your Big Ole Tree Contest.

Ashley Cantrell"