The Hardy Plant Society/ Mid-Atlantic Group The John J. Tyler Arboretum October 2022

Thanks to the generous grant provided by The Hardy Plant Society/Mid-Atlantic Group, Tyler Arboretum's Butterfly House and surrounding pollinator garden displays have been enhanced with the addition of many new native plants. These plants are critical to our success as they attract many insects allowing us to share the stories of the unique relationships between plants and animals with our visitors (see photo titled *Insect and Plant Tour*). Our ultimate goal is to help people become stewards of the natural world. The Butterfly House at the Pollinator Preserve hosted over 6,254 visitors and 1,100 youth from summer camps, anxious to see the displays and impress us with their knowledge. As of writing this report, the annual visitor attendance to Tyler Arboretum is 40,974 YTD.

We highlight the function and diversity of native plants in garden spaces. Our tours, demonstrations, signage, blogs, Education Stations, and citizen science projects are enriched with specific plants that will best convey concepts on life cycles, flower shapes, pollinators/pollination, predators, and conservation, to name a few.

We provide two distinct areas at the Pollinator Preserve. The first is the long-offered exhibit, the Butterfly House. Netting encloses this area, allowing for up-close viewing of the life stages of butterflies and a few large species of moths. Host and nectar plants flourish in these gardens. Outside of the Butterfly House are newer but more traditionally designed open gardens. Now in their second year, the beds are filled with native plants thanks to your generous gifts (see photo titled *Summer 2022*). The success of these gardens is measured by insect diversity and activity, learning opportunities, and their ability to amaze our visitors. It is more than we could have anticipated two years ago.

This year's theme at the Pollinator Preserve is a quote from marine biologist, writer, and conservationist **Rachel Carson.** Rachel's quote was chosen to highlight the 60th anniversary of her book, <u>Silent Spring</u>. Her quote, "Drink in the beauty and wonder at the meaning of what you see," captured the essence of the daily interactions between our highly trained volunteers and staff with our visitors. Every day our visitors are fascinated by what is happening at the Pollinator Preserve and ask us many questions. We want to share a few examples of how we encourage visitors to value native plants for their function and incorporate them into their own gardens:

1. "It is so beautiful! How do you attract so many pollinators?" While we see visitors who understand the value and need for native plants, there are far more people stopping by as they notice the pretty flowers, the fluttering of butterflies, and bees buzzing. Once they see the caterpillars munching on the plants and watch the bees dive into flowers, they know something more is happening before their eyes. The insects do most of the work for us, but once we begin to point out the different stages of life cycles or explain how the insects are eating, their interest peaks. We often find various life stages of a butterfly on a single plant or beneficial insects coming to the rescue of garden pests such as aphids. These examples throughout the gardens are powerful and convincing, creating deeper conversations that ultimately get back to the native plants. Our visitors leave us with their plant lists and photos on their phones, anxious to begin planning a few changes for their gardens. First, they were drawn in by the beauty, and then they started to understand the meaning of what they saw. Thank you to The Hardy Plant Society and Rachel Carson!

2. "It's fall, and there is still so much color and insect activity. How is this possible?"
Many of our newer plants focus on the needs of fall migrators and food for the incredible array of insects and birds seeking nourishment as they prepare for winter. Solidago and many new asters are the mainstays (see photo titled fall 2022), with a number of late-season plants such as Monarda, Scrophularia, Agastache, Phlox and Lonicera still flowering throughout the early fall. Some other plants added include Eryngium yuccifolium, Helianthus, Tiarella cordifolia, and Heuchera. Being able to display a pesticide-free garden filled with nectar-rich, native plants in October sparks curiosity and learning in many ways.

Our spring plans called for more vertical structures so we could showcase native vines. We added simple fencing for *Lonicera sempervirens* which immediately produced nectar to attract hummingbirds. In late summer, our desire to attract the caterpillars of the snowberry clearwing hummingbird moth (see photo titled *Hummingbird moth caterpillar on Lonicera*) was actualized, much to the amazement of our volunteer entomologists! We can excitedly report that we succeeded with daily hummingbird visits and three cycles of hummingbird moth caterpillars munching on our leaves. In addition, a new welcoming arch is now situated at our entrance along with our native *Passiflora incarnata* (see photo titled *New Arch 2022*). This beautiful vine has already reached the top of the arch while producing a multitude of flowers, and even fruit!

We witnessed tremendous growth and flowering of our one-year-old plants this summer (See photo titled *Early Summer 2022*). Because of this, we made a concerted effort to complete a major fall planting, anticipating the new plants to take root this fall and be of size for spring 2023. Some of the shrubs chosen for their nectar were *Cephalanthus occidentalis, Clethra alnifolia, Diervilla 'Kodiak Orange', Aronia melanocarpa,* and *Hydrangea arborescens 'Haas Halo'*. In addition, we supplemented our host and nectar perennial plants by adding more *Asclepias, Lobelia, Coreopsis, Echinacea, Liatris, Phlox,* and *Vernonia*.

We live in a world where pollen is seen as a nuisance in a tidy home. Plant hybridizers have successfully removed the pollen from most sunflower seeds now sold. To bring awareness to our visitors, we planted native annual sunflowers intending to educate our

staff, volunteers, and visitors on the fact that very few sunflowers on the market now produce pollen. We want our visitors to know the difference so they can purchase sunflower seeds which will produce flowers with pollen. Seeds, which are produced, are then available for birds, and the protein-rich pollen is available to bees and other insects.

The newly installed display has extended our program activities from two months to six -- from May to October! As of writing this report, we are in the midst of fall garden activities, and the needs of the insects will remain our focus. This means the garden will be "ungroomed" so insects can successfully overwinter. Signage will explain our lack of neatness, supported by blogs and the Pollinator Preserve landing page on our website.

Volunteers are the key to all our success at Tyler Arboretum. Thirty volunteers cover most of the daily two-hour shifts between 9:30 am and 3:30 pm. Our volunteers spent nearly 500 hours providing tours (an average of 90 people/six hours for the three peak months) and leading weekly Education Stations. Our dedicated 11 garden volunteers invested over 200 hours caring for the plants and helping our visitors with their many gardening questions. In addition, volunteers help with signage and messaging, assisting the visitors who are there before and after our shifts. This year, our summer intern, Isabelle Ruggieri, was with us for five months and helped in all aspects of the work at the Pollinator Preserve.

We cannot finish this report without identifying some of our exciting insect guests this year. In addition to the hummingbird moth caterpillars previously mentioned, we provided a home for dozens of sleepy orange caterpillars who consumed our *Senna marilandica* and delivered a month of golden fluttering throughout the gardens; spicebush caterpillars with their expressive markings provided amazement as we watched them go through their life stages on the *Lindera benzoin*; promethea and cecropia moths who adorned our *Prunus serotina* for weeks, and the *Pycnanthemum virginianum* which attracted nearly everything flying by and continues to help us learn our native wasps and bees.

We continue to inform our guests of the gift The Hardy Plant Society/Mid-Atlantic Group has provided us, using social media, our website, blogs, and a 'thank you' on our notice board in the entryway to the Butterfly House. We know this gift will also benefit the surrounding ecosystem, be aesthetically pleasing, and help Tyler fulfill its mission.

