

Emory Office of Sustainability Initiatives General Sustainability and
Social Justice Incentives Fund Grant for 2023/2024

“Library Landscape Pilot – Pollinator and Native Species plants”

Emory University Libraries Environmental Sustainability Committee
Final Report, August 27, 2024

Introduction

The ELESC Committee is proud to report on our activity using the funding provided by Emory OSI for our Pollinator Garden project. During the short timeframe within which we carried out our plans, we learned much about support for pollinators and Georgia native plants, we engaged in a pretty good collaboration with Exterior Services, several of our selections are beautifully flowering and attracting pollinators, and we are on the road to having a model we can assess for feasibility and future sustainability next year.

Goals and Activity

From the grant application: The goal of this project is to collaborate with Exterior Services and representatives and subject experts around Emory’s Atlanta campus to change the landscaping around the entrance to the Woodruff Library

Our advisors, Erik Edwards, Emory’s Educational Garden Project Coordinator and Jaap de Roode, Samuel C. Dobbs Professor of Biology, and board of directors member of the Rosalynn Carter Butterfly Trail made many suggestions for selection, most of which we incorporated in our plant lists for acquisition.

We worked closely with Exterior Services on plant acquisition, took their advice in a number of areas, revised the planting areas after information on ground infrastructure became known, and worked with the crew on the initial planting April 21. We were able to handle planting of later acquisitions ourselves, sourcing some hard-to-find species from a nursery in Canton Ga. (North Ga. Natives), handling the payment and plant pickup ourselves with Exterior Services approval, for additional plantings on July 5 and August 1.

Before (July 2023)



Planting April 18 2024



August 2024



We developed [a team approach to weekly monitoring of the plants' growth and needs](#), weeding, monitoring hydration, identifying plants that appeared not to be doing well in their location, and areas for additional plants as they became available.

Goals:

1) Introduce plants that provide food and/or larval stage support for pollinators (butterflies, bees, moths, hummingbirds and other creatures). Particular attention in selection is given to plants that support Monarch butterflies, bees, and other endangered insects.

All species selected had some indication in the literature that they provided food or habitat for pollinators including bees, beetles, flies and butterflies. Our plant list ([see Library Landscape Pilot Diagrams of Planting Areas](#)) includes two species of Asclepias (Milkweeds) recommended by de Roode for Monarch butterflies; we tried to find more and are still working on that.

2) Select native Georgia or regional species that support sustainability of the local ecosystem and better harmonize with natural areas on campus (with only two

exceptions).

Georgia native species included American Beautyberry (*Callicarpa americana*), Butterfly Milkweed (*Asclepias tuberosa*), Celandine Wood Poppy (*Stylophorum diphyllum*), Coral Bells/Alumroot (*Heuchera americana*), Coneflower (*Echinacea purpurea*), Foam Flower (*Tiarella cordifolia*), Golden Groundsel (*Packera aurea*), Green-and-gold (*Chrysogonum virginianum*), Joe Pye Weed (*Eutrochium dubium*), Narrowleaf Sunflower (*Helianthus angustifolius*), New York Ironweed (*Vernonia noveboracensis*), Obedient Plant (*Physostegia virginiana*), Tall Garden Phlox (*Phlox paniculata*), Purple Giant Hyssop (*Agastache scrophulariifolia*), Red Disk Sunflower (*Helianthus atrorubens*), Scarlet Beebalm (*Monarda didyma*), Scarlet Sage (*Salvia coccinea*), Spotted Beebalm (*Monarda punctata*), Swamp Milkweed (*Asclepias incarnata*), Trillium (*Trillium luteum*), White Wood Aster (*Eurybia divaricata*), Yarrow (*Achillea millefolium*), and Yellowroot (*Xanthorhiza simplicissima*).

The exceptions were three - Curly Parsley (*Petroselinum crispum* var. *Crispum*, a noted larval food for butterflies), Sweet Woodruff (*Gallium odoratum*, sentimental choice because of association with our benefactor's name), and Lenten Roses (*Helleborus orientalis*, selected as an evergreen to provide late winter blooms when other plants would be dormant).

3) In our selection, prefer species that have a history of use as food or medicine, particularly by indigenous peoples of this area. This could be an area for more research.

From the sources we consulted, species with history of indigenous use by the Creek people in the area that we identified so far include *Heuchera* (alumroot), *Achillea Millefolium* (yarrow), *Asclepias tuberosa* (butterfly weed), *Echinacea purpurea* (coneflower), and *Callicarpa americana* (American beautyberry), but we suspect there are more. We contacted fellow Michael Loren, who provided some useful information and leads to more before leaving at end of Spring semester. We contacted Dr. Malinda Maynor Lowery, Cahoon Family Professor of American History, and one of the leaders of the Native American and Indigenous Studies Initiative at Emory to introduce our project and see whether it could be useful for student learning and activities for that program. This is as far as we have gotten because of the brief time frame and uncertainty on what plants would be included and survive in the actual garden, but we will continue outreach in this area.

4) Provide a pleasurable environment for people visiting Emory University and especially the Woodruff Library.

While the garden is still growing and developing, we think at this stage it's at least more interesting for passers-by and those sitting outside:



We're starting to see some interest from pollinators too (sorry, photo blurry, hard to catch them!):

Bee on Joe Pye Weed



From conversations with Emory staff, faculty, and students while we monitored or worked on the garden, people liked the idea, wanted to know more, were interested in

volunteering, and occasionally offered suggestions.

5) Demonstrate harmony between introducing these new choices into the Emory landscape and the overall functional and design goals for landscaping at Emory.

It is early after only 3 months from planting to evaluate how well these plants can harmonize with surrounding areas maintained by Exterior Services, but based on our observations, there are specific plants we can suggest that are successful in beautifying the area as well as providing support for pollinators. Most of these plants are perennials so after we get through a year with them, we'll have a better sense of how they will stabilize and require less maintenance from us. We aim to have future conversations with Jimmy Powell and perhaps Erik Edwards to share perspectives and ideas.

6) Share information. Make the project plans, results and findings public. If possible, incorporate information about the plants into student learning wherever appropriate, and encourage participation in future project development by students interested in the University physical environment.

Our information sharing started right before the first planting (a brief image and announcement on the message lightboard at Woodruff Library, with a link to a [web page we created in tje libraries' LibNet](#) application providing overall information about the project, contact information, and some images of plant selections. Almost immediately, we got an inquiry from a student about the project. Shortly thereafter, we installed two signs in the planting area to let people know what was happening, also linking to our web pages. On July 2, 2024, we made a post to the Emory Libraries blog: [Library landscape pilot: Pollinator garden](#) which described the project, again with contact information, and this resulted in the addition of a student volunteer to our team. We plan to add a page to our website with this report and more detailed information about the garden and its progress in the next month.



Challenges

- **Timing**

The grant application anticipated being able to plant the perennial species in the fall, but since awards were not made until December, it was deemed too late in the year to obtain and safely plant our selections without risk of damage from freezing, so we had to shift our target for planting to spring.
- **Changes to Planting Areas**

As part of the ground preparation for planting, Exterior Services noted some infrastructure issues in some areas we had planned to include and suggested revisions to our plans. This resulted in challenges finding appropriate planting spots for plants requiring more sun or shady areas, and we ordered fewer plants so as not to overcrowd planted areas.
- **Signage**

It was difficult to find out the process for getting approval from the right campus

agencies for placing signs in the planting areas. We had budgeted for a large permanent sign, but reconsidered given that this is a “pilot project” so went with two temporary signs, for which we got approval and purchased from FedEx for quick turnaround (we wanted the sign in place before Commencement, not anticipating it would not be held on campus). These signs are holding up well at present, but may need replacement next year.

- **Plant Availability and Estimates**

Our estimates for the grant were based on information we could find on the web. Since Exterior Services preferred providers who usually give discounts, in many cases the costs were lower, and there is seasonal availability/price variability. In March Exterior Services began ordering and obtaining plants, but some of our selections were hard to obtain using approved University sources, due to limited number of local suppliers specializing in Georgia native plants. This is why we went to Canton Ga. to obtain some plants.

- **Plant Viability**

As we anticipated, not every plant did well in the spot planted due to differing needs for light and water. For example, out of the 15 green-and-gold plants under trees, we lost half in the first month after planting, although others seem to be slowly recovering. We have learned to be patient with the plants after planting, but did add some other species (Wood Aster) plants recently to see if they would do better.



Budget

Out of our budgeted amount of \$2,249.19, we spent a little over half (\$1,164.92) for reasons mentioned above (plant costs were lower than estimated; signage costs were also much lower). Details are in the linked [Library Landscape Pilot Plant Expenditures 7-26-2025](#) spreadsheet.

Assessment

Overall, we believe it is too early to formally assess the pollinator garden because we haven't been through a full year growth cycle for these plants. We need to observe winter survival, spring bloomers, perennial growth habit, and more response of pollinators, and future sustainability/need for maintenance once plants have had a chance to expand in their areas.

However, we are happy with the successful growth of many of our plants which beautify and provide interest to the front of the Woodruff Library as well as providing food for pollinators.

June 20: Obedient plant, coneflower, yarrow,



August 21: Butterfly milkweed finally starting to bloom, with yarrow, still blooming, and parsley. Plus, swamp milkweed also blooming, much taller.



As mentioned, we learned to be patient and to also to consult reputable sources (such as state extension service and nonprofit organization guides) for information about plant growth cycles, so we know what to expect (for example, some spring bloomers like trillium go dormant in summer, which does not mean they are dead!). We also think we were overly specific in some of our requests for this grant and hope to give ourselves more flexibility if we have future requests.

We asked our advisors to view the garden recently and give comments. Erik Edwards said as of now we are “90% successful”, and he is interested in following the progress of the garden. Jaap De Roode was favorably impressed and offered to share plants from his research programs with us in the spring next year.

We intend to continue with the garden and take lessons learned into future plans, and may share recommendations for others interested in changing landscaping around libraries or other buildings on Emory campuses. We will solicit more formal approval from our administrators to sustain this effort into the future. We hope to continue outreach to faculty, students, and other initiatives on campus to seek ways that the garden can be educational for all.

Submitted by

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