

# POLLINATOR IMPACT REPORT

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## 2025 Annual Report

Vet Med explores  
a 3.5 acre  
Pollinator  
Meadow!

Student-led  
education and  
conservation  
initiatives!



UNIVERSITY OF  
**GEORGIA**  
Office of Sustainability  
*Sustainable UGA*

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Edited by: Paige Robinson, Madeline Prol,  
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# OVERVIEW



*Eastern Tiger Swallowtail pictured sipping nectar from a flower. Photo credit: Claudia White*

Over the past two years, the Office of Sustainability has published comprehensive Bee Campus USA reports documenting our pollinator program activities, and this year we are excited to evolve this work under a refreshed title—the UGA Pollinator Impact Report—to better reflect its broader scope.

Bee Campus USA, a program by the Xerces Society for Invertebrate Conservation, empowers college campuses to lead the way in pollinator protection. For the past three years, the Office of Sustainability’s Campus Pollinator Interns have worked with the UGA Pollinator Committee, the Facilities Management Division, the Campus Arboretum, and faculty from various disciplines to help UGA maintain its official Bee Campus certification.

To earn and sustain this certification, campuses must commit to a range of initiatives, from establishing a Bee Campus USA committee advocating for pollinators, expanding and enhancing pollinator habitat on campus, reducing pesticide use, and providing courses and service-learning projects that integrate pollinator conservation.

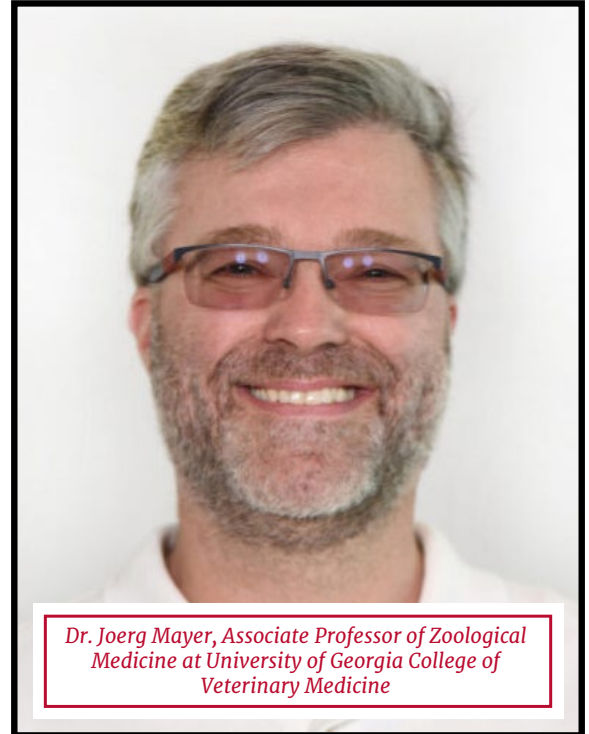
In 2024-2025, UGA demonstrated our commitment to pollinator protections by hosting 21 pollinator-related events, enhancing 1,686 square feet of habitat, and building innovative and effective tools that benefit pollinators. These efforts are intended to have a lasting impact on our campus community and contribute to a thriving environment for pollinators.

This report highlights the milestones achieved in and ongoing projects in the 2024-2025 school year. We invite students, faculty, and staff to continue supporting UGA’s role as a Bee Campus. Together, we can foster a campus that not only sustains pollinators but also inspires future generations to protect them.

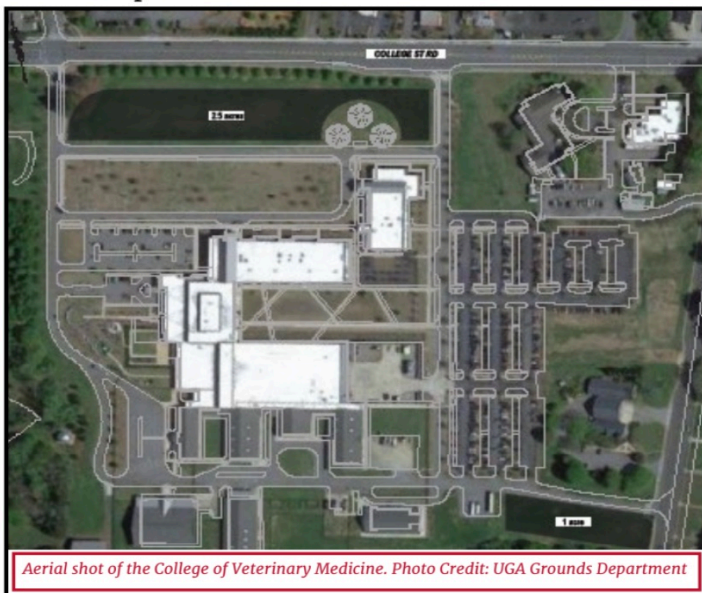
# POLLINATOR HEALTH AND HABITAT

## UGA plans first 3.5 acre Pollinator Meadow at the College of Veterinary Medicine Teaching Hospital

The University of Georgia's College of Veterinary Medicine is known for fostering innovation, and in 2023, they unveiled one of the university's most ambitious pollinator conservation projects yet. Spearheaded by Dr. Joerg Mayer, a distinguished animal veterinary surgeon and professor, the College is set to transform 3.5 acres of unused grassy space around the school into a flourishing pollinator meadow. Dr. Mayer is considered an innovator in the Veterinary Medicine field, launching one of the first and only honeybee veterinary medicine teaching and research programs in the world, conducting research on the world's first honeybee vaccine, and managing their own apiary of hives on the Vet Med Campus as a teaching and research demonstration. As a certified beekeeper, he recognized the need for high quality bee forage habitat in close proximity to the Vet Med campus apiary and envisioned the leadership that UGA might lend across the Southeast by learning to create large-scale pollinator habitats that will benefit both honeybees and other pollinators.



*Dr. Joerg Mayer, Associate Professor of Zoological Medicine at University of Georgia College of Veterinary Medicine*



*Aerial shot of the College of Veterinary Medicine. Photo Credit: UGA Grounds Department*

The plans call for a 2.5 acre meadow at the school's main entrance, and a 1 acre site at the south entrance to the building. Currently in the early implementation phase, this project is a collaborative effort. The College of Vet Med is working in conjunction with the FMD Grounds Department, the Office of Sustainability, Sustainability Capstone students, and other departments on campus in order to implement a model project for the site. The team has collaborated on a clover / coreopsis seed mix, planted with the Horticulture Gardens no-till drill, and are awaiting results from this growing season.

The meadow will be carefully planned in phases to insure that weeds are controlled and plantings are successful. As the meadow habitat is established it will create a unique zone for diverse pollinators, research opportunities for students and faculty, and serve as an educational site for the UGA and Athens community

# Annual Pollinator Census

The UGA Pollinator Program’s 5th Annual Pollinator Census was a fantastic opportunity for students, faculty, and community members to engage in citizen science. Born from [UGA Extension’s Great Southeast Pollinator Census](#), the UGA Pollinator Project hosts a smaller, on-campus only census to encourage the campus community to get involved in pollinator conservation! By taking just 15 minutes to observe and record pollinators interacting with flowering plants, participants contribute valuable data to a long-term monitoring project. Participation is as easy as scanning the Census QR code, choosing a nearby flowering plant and recording all pollinator activity within the 15 minute window. This data helps the Campus Pollinator Intern create educational materials, providing insights into pollinator spread and informing landscape management decisions for enhancing pollinator-friendly areas.

*Photo credit: Ally Reynolds*

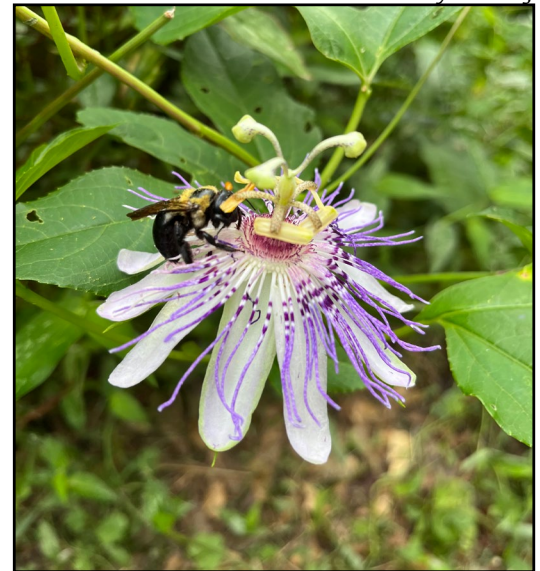
## 2025 Census Highlights:

- Historic high response with over 125 responses this year out of 409 all-time submissions
- 35% of plants surveyed were native species
- Honeybees were the most recorded pollinator in the census, with 119 total sightings



*Photo credit: Nunally Benzing*

*Photo credit: Madeline Washburn*

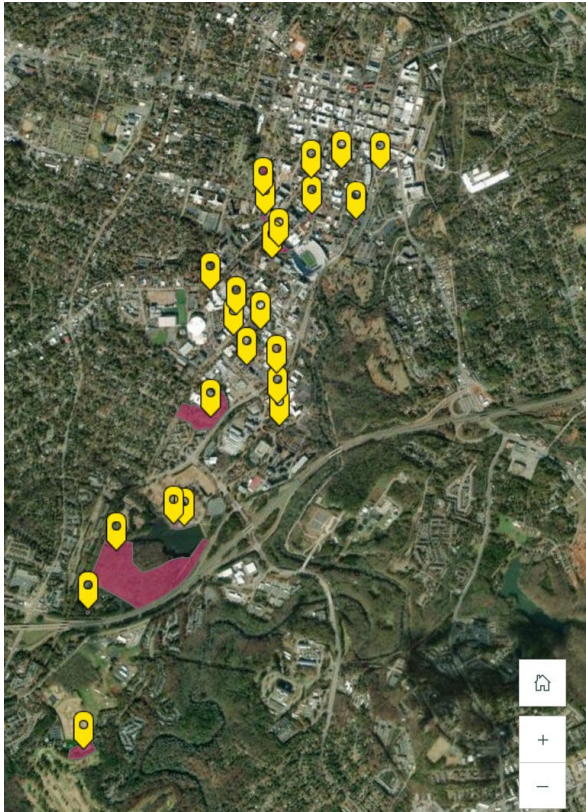


Participating in the census is not only a fun way to get involved but also crucial for understanding and supporting our local pollinator biodiversity. Join in and make a difference by taking the census this spring with the QR code here! Follow @pollinateuga on Instagram for updates, and please reach out if you have a class, club, or other organization that wants to take the census with guidance from the Pollinator Project.



# Pollinator Gardens on Campus

Looking for somewhere to take the pollinator census? We've got you covered! The UGA Pollinator Project has a variety of resources to help you discover pollinator-friendly habitat on our campus! Our [Pollinator Gardens Storymap](#) features an interactive map highlighting over 25 different locations for pollinator observation. Another great resource we have, created by Campus Pollinator Intern Paige Robinson, is a static map of UGA's main campus showcasing not just pollinator gardens, but also general green space. While designated pollinator gardens are a great choice for surveying pollinator activity, data from other areas on campus is just as valuable!



Thomas Street Art Complex



Presidents Club Garden



Founders Memorial Garden



Latin American Ethnobotanical...



UGA Memorial Garden



Tanyard Creek Natural Area 1



Tanyard Creek Natural Area 2,...



Tanyard Creek Natural Area 3,...



Geography-Geology Green Roof



Georgia Center Pollinator Plant of...



UGA Horticulture Trial Gardens



Odum School of Ecology Connect to...



D.W. Brooks Connect to Protect...



Mary Frances Early College of Education



Tucker Hall



Georgia Museum of Art



Swamp Milkweed Site



Driftmier Woods



Lake Herrick Edible Forest



Lake Herrick Pollinator Garden



We highly encourage you to take advantage of these resources! They exist to:

- 1) Enable you to visit the gardens closest to you on campus
- 2) Promote our Living Lab activities or service Learning days around the gardens
- 3) Help you collect data from them for our Annual Pollinator Census



University of Georgia  
Pollinator Gardens  
Storymap



University of Georgia  
Pollinator Project  
Website


# Georgia Pollinator Plants of the Year

The Georgia Pollinator Plants of the Year program shines a spotlight on four standout plants that are not only garden showstoppers but also pollinator powerhouses. Spearheaded by the State Botanical Garden of Georgia, with support from UGA Cooperative Extension and the Georgia Department of Natural Resources, this initiative celebrates plants that enrich both our landscapes and local ecosystems.

Each year, plants are honored in categories such as Spring Bloomer, Summer Bloomer, Fall Bloomer, and Georgia Native. Whether native or non-native, these plants are chosen for their ability to thrive in Georgia's gardens while providing critical support to pollinators like bees, butterflies, and hummingbirds.

**GEORGIA POLLINATOR PLANTS OF THE YEAR 2025**

**Beardtongues**  
*Penstemon*



**Summer Bloomer**


State Botanical Garden of Georgia  
UNIVERSITY OF GEORGIA

Photo: Alan Cressler

**Plant Care:**  
Sun-part shade  
Hummingbirds, bees, moths, flies, wasps and butterflies love it  
Medium water

**GEORGIA POLLINATOR PLANTS OF THE YEAR 2025**

**Chickasaw Plum**  
*Prunus angustifolia*




**Spring Bloomer**

State Botanical Garden of Georgia  
UNIVERSITY OF GEORGIA

**Plant Care:**  
Sun-part shade  
Bees, butterflies and songbirds love it  
Medium water

**GEORGIA POLLINATOR PLANTS OF THE YEAR 2025**

**Climbing Aster**  
*Ampelaster carolinianus*



**Fall Bloomer**


State Botanical Garden of Georgia  
UNIVERSITY OF GEORGIA

Photo: Alan Cressler

**Plant Care:**  
Sun-part shade  
Bees and butterflies love it  
Medium-high water

**GEORGIA POLLINATOR PLANTS OF THE YEAR 2025**

**Golden Groundsel**  
*Packera aurea*



**Georgia Native**

State Botanical Garden of Georgia  
UNIVERSITY OF GEORGIA

Photo: Wikimedia Commons

**Plant Care:**  
Sun-shade  
Native bees love it  
Medium-high water

Photo credit: State Botanical Garden of Georgia

Nominations come from gardeners across Georgia, and a selection committee evaluates them based on horticultural value, ease of propagation, and ecological significance. This program not only promotes beautiful garden plants but also fosters a deeper understanding of their role in supporting pollinator populations. Now in its 14th year, the UGA Botanical Garden hosts an annual native plant sale each Fall in October. For more information visit their website, [Georgia Pollinator Plants of the Year](#) or email [garden@uga.edu](mailto:garden@uga.edu). We encourage other plant retailers to promote winning plants each year, and for gardeners to consider planting one or more of these pollinator champions! You can also find most of these plants at UGA's Annual Spring Plant Sale at the Botanical Gardens held in mid April, find more information at [Spring Plant Sale](#).

# POLICIES AND PRACTICES

## Pollinator-Friendly Pest Control: UGA's Approach to Integrated Pest Management

At the University of Georgia, keeping our landscapes healthy while protecting pollinators is a delicate balance. The campus has embraced an Integrated Pest Management (IPM) approach, increasingly recognized as a best practice in landscape management in higher education. Instead of resorting to pesticides as a first line of defense UGA's IPM program focuses on sustainable approaches that minimize the use of chemical pesticides, and emphasize prevention, monitoring and natural control methods. These practices prioritize sustainability and biodiversity and create safer environments for pollinators like bees, butterflies, and other beneficial insects.



Sam Stephenson  
IPM Program Manager

### How IPM Works for Pollinators

**Prevention through Plant Selection:** UGA's landscape experts choose pest-resistant plants that thrive in Georgia's climate, reducing the need for pesticides. Many of these plants are also excellent food sources for pollinators, ensuring they can flourish without being exposed to harmful chemicals.

**Monitoring and Early Detection:** Regular monitoring of UGA's landscapes and green spaces allows the Facilities Management Division to identify potential pest issues before they become full-blown infestations. This early detection helps minimize the impact on plants and pollinators alike, as fewer treatments are needed.

**Targeted, Minimal Chemical Use:** Sam Stephenson, UGA's IPM Foreman, employs preventive care for weeds and pests during the "dormant" months (December – February). This approach involves pre- and post-emergent treatments strategically timed to coincide with periods of low activity on campus. When chemical treatments are necessary, UGA uses the least harmful options available and applies them strategically, using targeted spot spraying for specific weeds and manual removal of others to ensure a more sustainable approach. This minimizes harm to non-target species, particularly pollinators, and reduces pesticide drift.

### Creating a Campus Haven for Pollinators:

Through thoughtful pest management and a deep respect for the role pollinators play in our environment, UGA is leading the way in creating safer, more sustainable landscapes. IPM isn't just about controlling pests—it's about nurturing a thriving ecosystem where pollinators can flourish, benefiting everyone who calls our campus home. Together, IPM and pollinator conservation ensure that UGA's landscapes are not only beautiful but buzzing with life. Take a peek at our [IPM Program Manual](#) for details.



Photo credit: UGA Facilities Management Division

# Transforming Policy into Action: Heather Alley's Vision

Heather Alley, Conservation Horticulturist at the State Botanical Gardens of Georgia, is a passionate advocate for plants and pollinators. Each year, she drives the success of numerous pollinator initiatives, including the Certificate in Native Plants Pollinator Specialization, the [Connect to Protect](#) gardens throughout campus, and the [Georgia Pollinator Plant of the Year](#) program. Heather, alongside Emily Laske, Assistant Conservation Horticulturist, also serve on the UGA Pollinator Committee to provide insights on pollinator projects across campus as plant and gardening experts. Heather and her co-workers serve as an invaluable resource on campus for pollinator habitat management and implementation, and are a big part of the driving force that keeps the university Bee Campus certified.



**Heather Alley**  
Conservation Horticulturist



*Pictured above: Hannah Becker, Intern; Heather Alley, Conservation Horticulturist, Jennifer Ceska, Conservation Coordinator; Will Rogers, Research Specialist; Zach Wood, Grasslands Coordinator; Emily Laske, Asst. Conservation Horticulturist; Melanie Flood, Natural Areas Coordinator. Photo credit: Heather Ally*

The Connect to Protect program, one of the many programs offered by The State Botanical Garden of Georgia, is designed to connect people, plants and animals through gardening. These gardens combine beautiful public displays of native plants with educational materials to foster an understanding of the role that native plants play in maintaining biodiversity in urban and suburban landscapes of Georgia. Building up a network of connected habitats helps reduce issues that pollinators face due to habitat fragmentation. Here on UGA's campus, we have several Connect to Protect gardens, including one in front of the Odum School of Ecology and one in D.W. Brooks quad.

**D.W. Brooks Garden Maintenance Plan by Month**

Below is a general maintenance plan, month by month. The labor hours are only estimated- needs will vary with temperature and rainfall and require assessment closer to workdays to accurately gauge how many people/hours will be needed.

Winter		Summer	
<b>Dec</b>	• ~1 hour: Weed.	<b>Jun</b>	• ~4-6 hours. 3X/month: Weed. • ~2-4 hours: Trim late summer or fall flowering perennials to 1/3 of their current size to prevent flopping- especially close to sidewalk.
<b>Jan</b>	• ~1-2 hours: Weed. • ~1-2 hours: Cut back sedges to 1/3 of their original height.	<b>Jul</b>	• ~4-6 hours. 3X/month: Weed.
<b>Feb</b>	• ~3-6 hours. 2X/month: Weed. • ~2-4 hours: Add pinestraw where needed to prevent weed germination (contact UGA landscaping in advance to get pinestraw delivered to site).	<b>Aug</b>	• ~4-6 hours. 3X/month: Weed.
Spring		Fall	
<b>Mar</b>	• ~1-2 hours: Cut back any remaining dead stems. • ~4-6 hours. 2X/month: Wfed.	<b>Sep</b>	• ~4-6 hours. 3X/month: Weed.
<b>Apr</b>	• ~4-6 hours. 3X/month: Weed.	<b>Oct</b>	• ~1-2 hours. 2X/month: Weed.
<b>May</b>	• ~4-6 hours. 3X/month: Weed.	<b>Nov</b>	• ~1-2 hours: Weed. • ~3-6 hours: Cut back unsightly dead stems. Note that leaving dead stems standing over winter can be beneficial to birds and insects, but must be balanced with the expectation of tidiness for a campus garden.

*Photo credit: State Botanical Garden of*

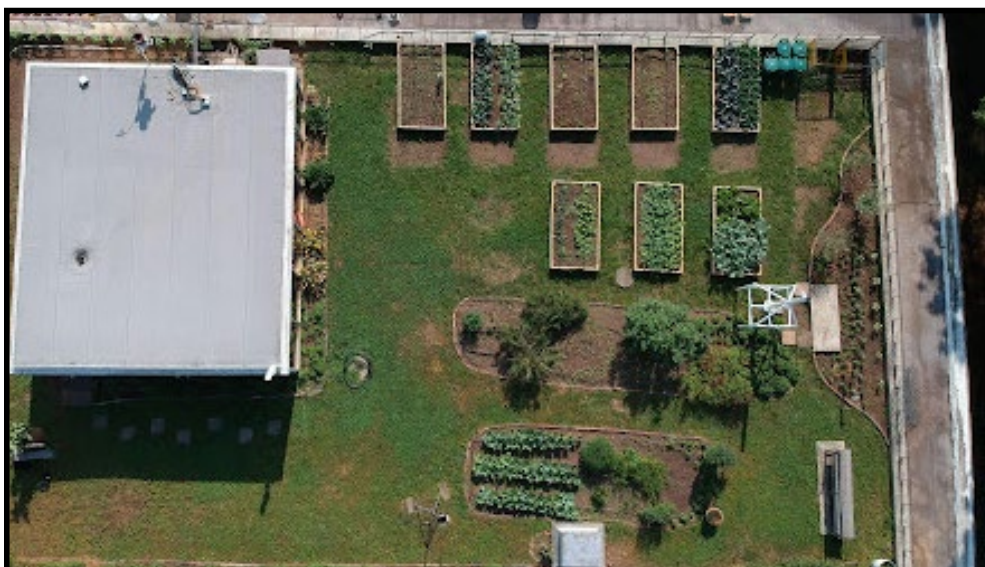
The *Maintenance Plan* shown here, developed by Heather and Emily, guides service-learning classes, interns, and volunteers, helping to keep the garden in optimal condition as a habitat for pollinators. As a vital member of the UGA Bee Campus USA Committee, Heather is an invaluable resource for those seeking to deepen their understanding of pollinator-friendly plants and sustainable landscaping practices. Her expertise, organization, & vision have been instrumental in ensuring the continuity and growth of pollinator initiatives on campus year after year.

# STUDENT LED INITIATIVES

## Student Compares Spaces for Bees on Campus

At the University of Georgia, student-led initiatives are essential to the success of many campus programs. Through involvement in student clubs and organizations, internships with the Office of Sustainability, and independent research, students engage in a wide variety of pollinator-related projects.

In 2023, Office of Sustainability Urban Agriculture Intern Abigail (Abby) Lauterbach exemplified this engagement with her project titled “A Comparative Study of Bee Genus Diversity and Abundance in Urban Agriculture Sites versus Urban Ornamental Sites in Athens, GA.” Funded by UGA’s Center for Undergraduate Research Opportunities (CURO) and supported by the Department of Entomology, the project asked a simple and important question, “Do Urban Agriculture landscapes foster greater bee diversity compared to other habitats? The evaluation focused on both bee abundance and genus richness, providing valuable insights into the impact of urban farming practices on pollinator populations.



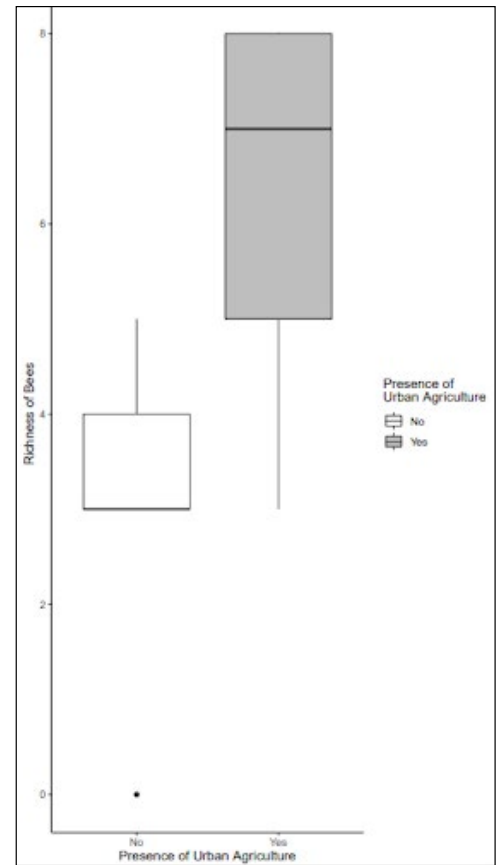
*UGA has multiple urban agriculture habitats throughout its campus including this 2,200 sq ft Green Roof Garden atop the Geography / Geology Building in the center of campus. This garden now grows food and herbs as an extension of the UGarden student farm that donates food to those in need throughout the community.*

*The University of Georgia Trial Gardens, pictured to the right, were a lively example of a non-agricultural urban site in Abby’s study. This garden is used by the College of Agriculture and Environmental Sciences for horticultural projects, as well as providing a relaxing green space for students and staff.*



The results from Abby's project revealed a significant difference in genus richness between urban agriculture sites and those without. As illustrated in the accompanying graph, sites featuring urban agriculture demonstrated higher levels of bee richness (ie. the number of different bee species). This finding underscores the critical role that pollinators play in urban environments around campus, highlighting the importance of integrating agricultural practices to support and enhance local bee populations. This study offers valuable insights, though opportunities remain for further exploration. Expanding the sample size, collecting data across multiple seasons, and conducting repeated trials over several years would enhance the depth of future research.

The data collected so far provides a strong foundation for continued study. Abby's work has laid the groundwork for meaningful comparative research on our campus pollinators, opening exciting possibilities for future discoveries!



The box and whisker graph, pictured to the right, showcases the richness of bees found in Abby's study. In sites with urban agriculture present, you can see that the highest species richness was 8, versus in sites without urban agriculture, the highest richness was 5. The median richness of bees in urban agriculture sites was a 7.

**UNIVERSITY OF GEORGIA**  
College of Agricultural & Environmental Sciences

### A Comparative Study of Bee Genus Diversity and Abundance in Urban Agriculture Sites versus Urban Ornamental Sites in Athens, GA

Abigail Lauterbach, Miriam Edelkind-Vealy, Dr. Conor Fair, and Dr. Kristine Braman  
Department of Entomology

#### Background

Bee diversity, as measured usually by species richness, abundance, and evenness is an important indicator of ecosystem health. Bees are widely threatened by irresponsible land and plant management practices, chemical use, and climate change related extreme weather events (Goulson, Lye, and Darvell, 2008).

While traditional agriculture in rural areas unfortunately poses a threat to wild bee diversity, bees show high diversity in urban areas (Theodorou et al., 2020). Modeled bee abundance in the US declined in 23% of US land due to development of natural habitats into farmland (Koh et al 2015).

**Does urban agriculture promote bee diversity by providing urban resources and habitats?**

#### Methods

This study deployed six 48-hour trials of tri-color pan traps over 10 sites selected from the UGA Office of Sustainability database of pollinator-friendly campus green spaces and gardens.

Urban Agriculture	No Urban Agriculture
The UGA Office	UGA #1 Ornamental
Georg. Cress Road **	UGA Funder's Garden
ERC Garden	UGA Trial Garden
The Willard Farm	Chesser To Present @ OW Bees
Brown Elementary **	UGA Professor's Garden

Sites used in study

Samples from the passive tri-color traps were preserved and identified to the genus category.

Tri-color pan traps deployed

#### Results

Of 129 total samples including bees, 11 genera were represented – including specialists.

Genus present in sites growing food (green) versus sites without food (blue)

$H_0$ : Urban agriculture sites have similar GB & A to ornamental sites.  
 $H_a$ : Urban agriculture sites have higher GB & A than ornamental sites.

#### Bee Abundance

Data indicated a biologically relevant difference in bee abundance between sites, with  $p < .08$  using a generalized linear model.

#### Genus Richness

Genus richness amongst sites was significantly different. Food had an average of twice as many genera than ornamental sites with  $p < .017$  using an ANOVA.

#### Conclusion

Urban agriculture can promote bee diversity by providing a wide diversity of floral resources to bees, especially specialist bees.

Urban food production sites in Athens, Georgia are richer in bee genera than ornamental sites, and marginally more abundant in bees.

Further investigation of the problem of bee diversity in urban agriculture should consider the following directions:

- Identifying down to species
- Investigating species
- Expanding seasons
- Investigating populations
- Evaluating plant

Abby Lauterbach's CURO research on urban agriculture habitat influences on bee diversity and abundance won first prize at the Poster Presentation of the Cleantech Symposium sponsored by the Swiss Consulate in 2023.

Photo credit: Abby Lauterbach

## EcoReach: Educating the next generation

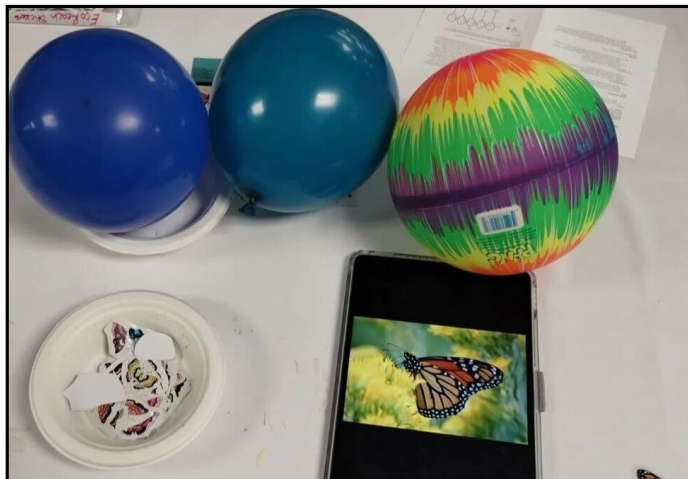
[EcoReach](#) is a student led public service organization that connects University of Georgia ecology students and professionals with school-age children to raise awareness about ecology and environmental issues. The Odum School of Ecology group is currently led by Supraja Rajagopal. EcoReach invites all students, staff, and faculty across UGA to volunteer. Opportunities include participating in various events throughout the semester, such as the Athens-Clarke County Water Festival, Insectival, and Boy Scout Merit Badge Day. During these events, volunteers engage young children and attendees in ecological topics through fun games and activities.



EcoReach hosts several events focused on pollinators each year, including a standout event for many EcoReach members: the Insectival festival at the State Botanical Gardens each fall. Here, EcoReach showcases insect-themed merchandise, activities, and educates school children on the importance of insects, with a particular emphasis on pollinators at various stations. At the end of the day, there is an exciting monarch release event that encapsulates the excitement of insect and pollinator conservation.

### Monarch Migration Station

Another pollinator education event from this year was a “monarch migration station” at Clarke Middle School’s Family STEM Night, pictured below.



*Photo credit: @ecoreachuga on Instagram*

In this activity, students explored the Monarch butterfly’s migration journey and the challenges they face along the way. First, they tossed a ball (representing a healthy Monarch) through hoops (symbolizing the migration path), demonstrating how easy the journey can be for these butterflies under ideal conditions. Next, they learned about the parasites that affect Monarchs during migration, making their journey more difficult. This was illustrated by trying to throw a balloon through the hoops—much harder to do. These hands-on activities are designed and led by EcoReach volunteers, who work tirelessly to educate children about the vital role pollinators play in our ecosystem and what threats they face!

## Online Pollinator Lessons and Activities

EcoReach extends its impact beyond in-person education by curating a dynamic online collection of lessons and activities. Their website features an array of engaging pollinator content, inviting parents and children to explore interactive games, build bee hotels, and discover the vital role pollinators play in our ecosystems.

One standout resource, “All About Moths,” introduces readers to the fascinating differences between moths and butterflies. With clear, step-by-step instructions, families can use a simple setup—a white sheet and a light at night—to attract moths, offering children a rare chance to observe these creatures up close and in abundance. This hands-on experience brings the wonder of pollinators to life in an unforgettable way.



EcoReach offers another exciting pollinator-themed activity for kids on their “Pollinator Program” page. This resource features a series of engaging educational slideshows covering topics such as how pollination works, plants that attract pollinators, threats pollinators face, and the impact of human activity on their populations. These resources can be useful for teaching all ages about pollinators!

Beyond these informative materials, the page also connects visitors to two interactive online pollinator games and a hands-on craft activity titled “Making a Bee Hotel.” This step-by-step guide, complete with helpful images, teaches readers how to create nesting habitats for bees, encouraging them to attract these vital pollinators to their yards. Providing safe spaces for bees is essential for strengthening pollinator populations, and engaging children in this mission helps foster a future generation dedicated to biodiversity conservation.

EcoReach volunteers work diligently to maintain the website and its expanding collection of educational activities, and additional support is always welcome!

For more pollinator activities, lessons, and volunteer opportunities, visit the EcoReach website below!



### Making a Bee Hotel

A bee hotel is a place where solitary bees can make their nest and lay their eggs! By providing a safe nesting site for them, you'll help the bees and attract pollinators to your yard!

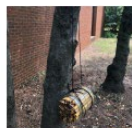


#### Supplies:

- Mason Jar
- Paper Straws
- Glue
- String/Twine/Rope

#### Steps:

1. Completely wash and dry mason jar
2. Fold one end of paper straws over so the bees don't spend time plugging the holes
3. Pack mason jar with enough straws to the point they don't feel loose. If needed, you can make more straws by rolling parchment paper.
4. Tie a string or twine around the jar and use glue if needed to secure jar.
5. Hang bee hotel in a south facing direction at least 3 feet off the ground.



#### Tips & Tricks:

- You can tell bees are using your hotel when they make a mud “door” to cover the entrance hole. This means a female bee has laid an egg inside.
- At the end of the summer, bring the entire nest into a garage or basement, at the start of spring, hang the nest back outside and the bees will emerge
- After the bees emerge in the spring, replace the straws for new ones

# CONTINUING EDUCATION & SERVICE LEARNING

Service learning and continuing education are integral components of our institution’s mission to foster lifelong learning, community engagement, and meaningful impact. Service learning allows students to connect classroom theory with real-world applications, addressing pressing community needs while gaining valuable hands-on experience. Continuing education, on the other hand, provides opportunities for individuals at all stages of life to deepen their knowledge, acquire new skills, and engage with the community in meaningful ways. Together, these two approaches create a dynamic environment where learning extends beyond traditional classroom settings. In particular, our faculty and departments have developed innovative service learning opportunities centered on pollinator conservation, offering students and community members the chance to participate in projects that support pollinator habitats, research, and environmental education. These initiatives not only contribute to sustainability efforts but also empower participants to become active environmental stewards. We are deeply grateful to the faculty and departments whose vision and dedication have made these pollinator-focused service learning and continuing education opportunities possible!

## How Georgia Built a Top Beekeeper Training Program

Back in 2002, a group of 18 honeybee enthusiasts gathered at Young Harris College, way up in the Appalachian Mountains of Georgia about halfway between Hiawasee and Blairsville, to complete one of the state’s first certified Beekeeper Training programs. This initiative, known as the Young Harris Beekeeping Institute, was co-founded by Dr. Keith Delaplane, an entomology professor at the University of Georgia, Robert Brewer, Union County’s UGA Extension Agent, and Dr. Paul Arnold, a biology professor at Young Harris College, in collaboration with the Georgia Beekeepers Association. Initially modeled after a similar program in North Carolina, it has since evolved into one of the nation’s most rigorous and respected beekeeper training programs. Over the past 23 years, 1,458 individuals have met the program’s rigorous standards, achieving a high level of expertise and certification.



*Dr. Keith Delaplane*  
*University of Georgia*



*Dr. Paul Arnold*  
*Young Harris College*



*Robert Brewer*  
*UGA Extension*

The program consists of four progressive certification levels, each requiring about a year to complete:

- **Certified Beekeeper (Tier 1):** Requires at least two years of beekeeping experience, along with passing both written and practical exams.
- **Journeyman Beekeeper (Tier 2):** Considered the most challenging master beekeeper exam in the U.S., this level demands a deep understanding of honeybee diseases and pests. A zero-fail standard means that candidates must answer every exam question correctly to pass.
- **Master Beekeeper (Tier 3):** Expands on technical expertise while emphasizing public outreach. Master Beekeepers serve as ambassadors for honeybees, educating the public and engaging with the media.
- **Master Craftsman Beekeeper (Tier 4):** Equivalent to a graduate-level program in apiculture, this level requires candidates to demonstrate advanced theoretical knowledge and specialization in a particular area of beekeeping.

## Training and Successes:

The program's long-standing integration with the University of Georgia has strengthened its comprehensive educational framework, making it a model for other states. The University of Florida, for example, has adopted Georgia's four-tiered structure. The program also draws participants from across the country, further solidifying its reputation as a national leader in beekeeping education.



*The last graduating class from the Young Harris Beekeeping Institute - 2022*

Beyond traditional training, the program has also expanded into Georgia's prison system. Since 2015, 237 incarcerated individuals from eight state prisons have earned Certified, Journeyman and Master certifications. For many, this program is life-changing, offering a sense of achievement and future opportunities. As one participant shared, "I never thought I could pass a University of Georgia exam," while another reflected, "I now know I can accomplish anything I put my mind to."

Georgia ranks 10th nationally in honey production, producing 3.3 million pounds annually, and is among the top three states for honeybee and queen bee production. The Master Beekeeper Program plays a crucial role in sustaining Georgia's leadership in apiculture. Following the dissolution of the Young Harris Beekeeping Institute in 2022, the program is now fully housed within the University of Georgia's College of Agricultural and Environmental Sciences. It's an outstanding time to reflect and give thanks to Young



*Dr. Jennifer Berry, UGA Bee Lab*

Harris, Dr. Paul Arnold, and all the founding leaders and participants in the Master Beekeeper Program.

Under the dedicated leadership of Dr. Jennifer Berry, who has been instrumental in the program's success for over two decades, Georgia's Master Beekeeper Program remains stronger than ever—continuing its legacy of excellence, innovation and collaboration.

# Curriculum Highlights

## ECOL 4900 Environmental Practicum

This is a studio ecology class where students work in teams to address pressing environmental concerns identified by community stakeholders. Students will be involved in the planning and implementation of the project(s) and 25–50% of the overall instructional class will be engaged in the service-learning component. Students this year did maintenance projects in an all-native pollinator garden in the quad of the Odum School of Ecology. They also worked on invasive species removals of *Nandina* across campus.



Photo credit: Dr. Richard Hall



Photo credit: State Botanical Garden of Georgia

## Plants and Pollinators Specialization

This specialization is open to people currently enrolled in or graduated from the Certificate in Native Plants program, as well as those who have not yet participated but are looking for an opportunity to get involved in pollinator protection in their area. Courses in this series are focused on insect identification, pollinator conservation and wildlife garden design as well as the importance of plant-insect interactions for healthy landscapes and our overall ecosystem. By completing this program, you will gain the knowledge and experience required to maintain pollinator habitats from small raised beds in a school garden to large plots on private or public lands.

## Certificate in Native Plants

This program includes a comprehensive series of courses in the identification, propagation and conservation of Georgia's native plants and the ecosystems that support them, with an emphasis on participatory learning. Courses are focused on the ecological significance of native plants and provide participants with the conservation know-how employed by hobbyists and professionals alike. Whether you are pursuing a career in plant conservation or simply seeking to become a more knowledgeable citizen, the Certificate in Native Plants will provide you with the tools necessary to do so. For more information, you can contact [sbgeduc@uga.edu](mailto:sbgeduc@uga.edu)



Photo credit: State Botanical Garden of Georgia

# LIVING LAB & DIGITAL ARCHIVE

## Learning that Makes a Difference

In March 2022, the University of Georgia and the Office of Sustainability launched the Living Lab program to foster collaboration between operational staff, faculty, and students in addressing real-world campus sustainability challenges. Rooted in the simple idea that “the campus is a wonderful learning lab,” the initiative embraces interdisciplinary, experiential learning to study our environment and achieve outcomes that exemplify learning that makes a difference. Campus pollinator research and related projects are a natural fit for this approach.

Recognizing that documenting and sharing outcomes is just as important as the learning itself, the team—working in partnership with the UGA Libraries—launched the [Campus Sustainability Digital Archive](#) in November 2022. This platform serves as a central hub to preserve the data, findings, and lasting impacts of Living Lab projects. The Pollinator Project made the archive’s first official contribution with its 2022 Bee Campus Annual Report.

In March 2023, a call for submissions was issued to faculty involved in the Pollinator Project, inviting archivable materials from coursework, capstones, independent research, and internships. Guidance was provided to help identify which outputs—such as datasets, project reports, and analysis—were appropriate for inclusion.

Looking ahead, we aim to expand faculty and course participation in the Living Lab program and promote annual submissions to the archive. These may include project methodologies, measured outcomes, ongoing data collection, and recommendations for future action. Results from the annual Pollinator Census will continue to be archived, and as the census shifts toward continuous, year-round data collection, links to real-time data sources will also be integrated.

### How to submit something to the digital archive:

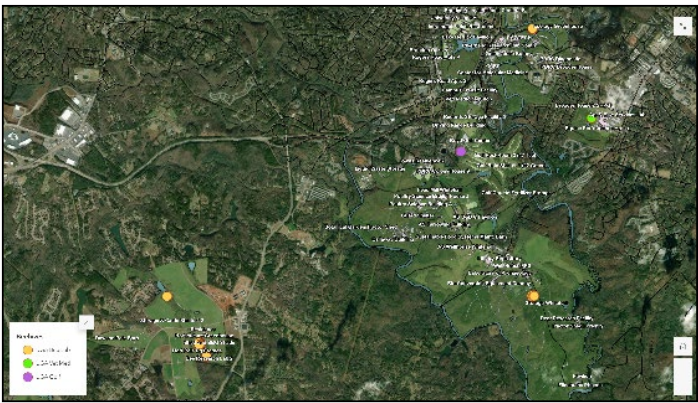
- Please email Justin Ellis @ [justin.ellis@uga.edu](mailto:justin.ellis@uga.edu) with your Living Lab documentation and/or data. Or call the office at 706-542-3093. We’re happy to provide suggestions and support.



# Pollinator Living Lab Submissions

## Beekeeping at UGA

The [Beekeeping at UGA Story Map](#) is designed to synthesize pollinator work specifically focused on Beekeeping activities for western honeybees across UGA's Athens, GA campus properties. The purpose of this site is to keep an up-to-date map of Beekeeping locations, a description of program goals, successes, news stories and resources, and lead contact information for UGA leaders involved in beekeeping programs. This resource was first completed by the Office of Sustainability on behalf of UGA's Finance and Administration in November of 2023 as a project of UGA's Campus Pollinator Project, which promotes pollinator well-being through habitat enhancement, education, outreach, research, & collaborative projects among students, faculty, staff and the community.



## Plant Guide for Pollinators

The UGA Plant Guide for Pollinators is an interactive dashboard designed in Google's Looker Studio for the purpose of simplifying the creation of pollinator garden planting plans. The Plant Guide allows an organizer to search for and identify plants possessing specific characteristics that would be ideal for selection in cluster plantings, enhancing pollinator habitats while simplifying long-term maintenance requirements. This guide was first completed by the Office of Sustainability in December of 2023 as a project of UGA's Campus Pollinator Project, which promotes pollinator well-being through habitat enhancement, education, outreach, research, & collaborative projects among students, faculty, staff, and the community.

For full access to the digital archive and interactive versions of featured projects, scan the QR code on this page or follow the link at the [Living Labs Project](#). Please reach out if you have a project to submit!



# CONCLUSION AND NEXT STEPS



## Recap

*Photo credit: Ally Reynolds*

The University of Georgia has had another very successful year of pollinator education, conservation, habitat improvement, and more! We are proud to remain a certified Bee Campus USA through the Xerces Society by investing time and effort into a plethora of pollinator-related initiatives.

This year we were able to:

- **UGA's First Pollinator Meadow:** Make progress on the new Pollinator Meadow at the College of Veterinary Medicine
- **Pollinator Habitat Mapping:** Improve a comprehensive map of Pollinator Habitats, with the ability to expand information and knowledge on these moving forward
- **Integrated Pest Management:** Continue to develop and improve of our IPM practices through the Grounds Department
- **5th Annual Pollinator Census:** Host another successful year of the campus Pollinator Census
- **Georgia Pollinator Plants of the year:** Support the 4th annual Georgia Pollinator Plants of the Year program

## Looking Forward

We have many exciting pollinator initiatives coming up in 2026 and beyond:

- Next phase of the Vet Med Pollinator Meadow
- Pollinator plants planting event at the UGA Golf Course
- Invasive species Naninda mapping project (basis for future habitat improvement)
- Continue developing IPM practices, in pollinator space, especially in vet med project
- Dining at UGA x Pollinator Project education initiatives

## Get Involved

The UGA Pollinator Project would not be able to accomplish all of our successes without the great work of our Pollinator Committee! This committee was organized in 2019 in our efforts to pursue Bee Campus U.S.A. certification for the first time. Faculty, staff and students interested in supporting the Pollinator Project and our efforts for re-certification are invited to join the committee! The committee meets once in the Fall semester and again in the Spring semester. Members are invited to share updates on any pollinator-related projects and are encouraged to use the space as an opportunity for collaboration with others on such projects. To learn more about the committee, please visit our website [here](https://sustainability.uga.edu/community-engagement/pollinators/), and join us by emailing Justin Ellis at [justin.ellis@uga.edu](mailto:justin.ellis@uga.edu). Thank you again to all of our project partners and report contributors for Bee Campus USA 2025! Stay tuned for the Bee Campus 2026 Report and consider sharing with your friends, peers, students, etc. Let's continue to make UGA a haven for pollinators!

Website: <https://sustainability.uga.edu/community-engagement/pollinators/>

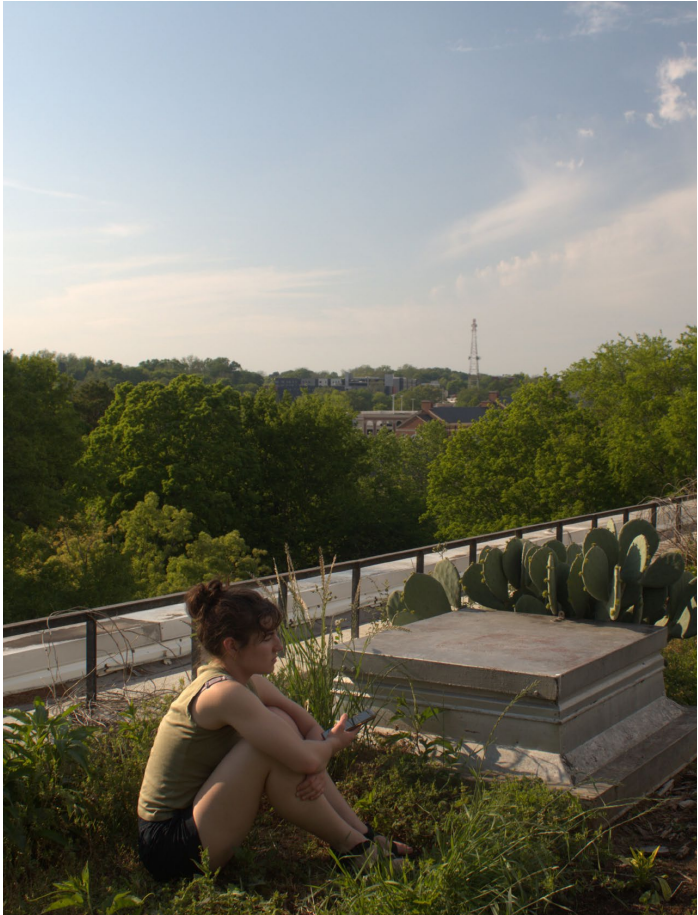
Pollinator Program Instagram: [@pollinateuga](https://www.instagram.com/pollinateuga)

Office of Sustainability Instagram: [@sustainableuga](https://www.instagram.com/sustainableuga)

## Our Work inAction

As we conclude this year's report, we recognize that the success of UGA's pollinator initiatives is driven by the dedication of students, staff, and partners across campus. These images reflect the collaboration, care, and commitment that continue to strengthen pollinator conservation at UGA. We look forward to building on this momentum in the years ahead.

"Small Actions, Collective Impact"







**UNIVERSITY OF**  
**GEORGIA**  
**Office of Sustainability**



**XERCES**  
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for Invertebrate Conservation