

Bee Campus USA - Auburn University

Report on 2022

Pollinator Habitat Creation & Enhancement

A variety of habitat enhancement projects took place across campus last year. Facilities Management improved over 110,000 square feet of habitat at 5 separate locations on campus, using native wildflowers planted from seed mixes to create suitable pollinator habitats. They also maintain over 12,000 square feet of pollinator-friendly, seasonal flowers located in 80 locations across campus. The Donald E. Davis Arboretum continually performs enhancements on its 13 acres, from planting oaks and azaleas and installing new display areas, including a new pollinator meadow. It also maintains flower gardens with milkweed, natural areas, meadows, native trees and shrub plantings, and conducts invasive species removal. The College of Agriculture partnered with the College of Human Sciences to install and operate a 4,400-square-foot rooftop garden to supply food and flowers to the new Rane Culinary Science Center. Finally, students and staff associated with the AU Community Garden and the AU Bee Lab also grew various plots of wildflowers suitable for pollinators for aesthetic and research purposes.

How many habitat projects did you help to create or enhance last year?

89

How many total square feet of habitat were created or enhanced?

128800

How many volunteers helped with those projects?

48

Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

- Flower garden
- Vegetable garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Herb garden
- Native milkweed planting for monarchs and bees (where appropriate)

- Invasive/exotic plant species removal for habitat improvement
- Native pollinator-friendly tree planting
- Native pollinator-friendly shrub border/hedgerow planting
- Rain garden/bioswale



One of the wildflower plot locations within the Donald E. Davis Arboretum.



A view of the rooftop garden on the new Rane Culinary Science Center.

Education & Outreach

Due to pandemic restrictions in early 2021 and continuing through summer, online events were the bulk of Auburn's efforts. The 'At Home Beekeeping' webinar series coordinated by the Auburn University Bee Lab (AU Bee Lab) and the Alabama Cooperative Extension Service (Extension) is a once-a-month educational webinar that features apiculture specialists from the entire southeastern set of Land Grant Universities and the USDA ARS in the region. Topics cover the full range of honeybee care and native pollinators. This webinar reaches all US States and Territories as well as international viewers. Extension specialists also had face-to-face meetings with local beekeepers associations in Clarke, Baldwin, and Washington Counties on seasonal topics such as summer nectar dearth, winter bees, and varroa mite control. In addition, AU Bee Lab researchers and technicians conducted 23 presentations at local and regional conferences/meetings and gave 8 local demonstrations. These efforts covered various topics, such as beekeeping best practices, bee colony loss, impacts of neonicotinoids, and general bee/pollinator awareness. The Donald E. Davis Arboretum (Arboretum) also contributed to outreach efforts by hosting 2 native plant sales with over 200 people in attendance and hosting tours and other special events where people can learn about pollinator-friendly plants, shrubs, and trees. Beyond these organized outreach events, the AU Bee Lab has an extensive online presence reaching over 100,000

unique users a day and growing its audience by over 1000 followers in 2021. As a part of their content, they featured a Bee of the Month, a Wildflower of the Month, and information promoting National Pollinator Week, along with their regular informational and behind-the-scenes content. Extension publishes a monthly newsletter for Alabama Beekeepers with a subscribership of 693 beekeepers that features monthly management techniques and videos to news about beekeeping in the state. The Arboretum and the Auburn University (AU) Community Garden also maintain robust social media channels, where they have featured content on how to protect and support a range of pollinators. Finally, as a part of the Bee Lab's awareness and fundraising efforts, they have sold honey, t-shirts, and even partnered with a local brewery to create a specialty beer and a local hotel to create a signature cocktail.

How many pollinator-related events did your affiliate host or help with last year (in total)?

30

How many people attended those events (in total)?

10875



Students receiving a tour of the AU Bee Lab.



AU Bee Lab travels with their bees to help engage the community at various events.

Courses & Continuing Education

Students taking courses within the Entomology & Plant Pathology department learn about pollinators in various classes, including Bee Biology & Management and Economic Entomology. These courses cover native bees, native wildflowers, pollination, honeybees, beekeeping, and integrated pest management. In addition, students within the College of Forestry, Wildlife and Environment learn about green infrastructure, pollinator-friendly practices, pollinator interpretation, and pollinator garden design through a variety of courses like People & the Environment, Environmental Interpretation, and the Science of Nature. In addition to these formal course offerings, the 27th Annual Alabama Beekeepers Symposium was held in February of 2022 on Zoom. The entire event was viewed across several states over 2 days and the recordings were further viewed over a period of 2 weeks post-symposium. The Annual Symposium focuses on how-to topics and features keynote speakers that represent the edge of current beekeeping research. Alabama Cooperative Extension Service also hosts a monthly At Home Beekeeping Webinar, which reaches 100s of folks each month and covers topics like pest management, habitat management, honey properties, and pollinator diversity, among others. Extension has also hosted an offering related to pollinator-friendly woody plants for landscapes, and the Arboretum offered an Osher Lifelong Learning Institute course on using native plants in your landscape. Beyond curriculum and extension, Auburn faculty and students presented research findings at meetings and conferences throughout the year. Auburn's Bee Lab faculty and researchers also remain actively involved in the Bee Informed Partnership and the COLOSS Association.

How many of your for-credit courses included pollinator-related information last year?

6

How many students attended those for-credit courses?

275

How many of your continuing education courses included pollinator-related information last year?

5

How many participants attended those courses?

3260

Alabama
Extension

Beekeeping



27th Annual Alabama Beekeepers Symposium

February 5-6, 2022

Saturday 8:30 AM -12 PM, CST

Sunday 2 PM - 5 PM, CST

Fee: \$20



Join us for the **27th Annual Alabama Beekeepers Symposium** in February! This VIRTUAL event will feature presentations from Dr. Samuel Ramsey, Dr. Priya Basu, Dr. Juliana Rangel, the AU Pollinator Lab and more! Topics will cover the three biggest problems that stand in the way of beekeeper success: **QUEENS**, **MITES**, and **NUTRITION**. Recordings will be available for 2 weeks after the event.

Register at:

<https://www.aces.edu/go/2022ABS>

Questions? Contact Jack Rowe
wjr0001@aces.edu or (251) 589-5572



The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) is an equal opportunity educator and employer. Everyone is welcome! Please let us know if you have accessibility needs.

BEE CAMPUS USA
AN INITIATIVE OF THE XERCES SOCIETY

XERCES SOCIETY
for Invertebrate Conservation

Service-Learning

Auburn students participated in various formal and informal service-learning opportunities throughout the year. Undergraduate students in the College of Agriculture's Bee Biology & Management course had multiple service-learning opportunities, including visiting with practicing apiarists, planting pollinator-friendly plots, building bee hotels and hive boxes, and learning about honey harvesting. In addition, students in the horticulture and hospitality programs at Auburn use the Rane Culinary Science Center's 4,000-square-foot garden as a learning laboratory and research facility throughout the academic year, providing them with opportunities to learn about growing food, its connection to pollinators, and how to manage a garden for the benefits of both production and protection. Extracurricular opportunities for service learning stemmed primarily from student employment at the Donald E. Davis Arboretum, the AU Bee Lab, and the AU Community Garden. Students helped with habitat enhancement projects in these settings, conducted outreach education activities on campus and in the community, and assisted with Bee Lab and Community Garden activities.

How many service-learning projects did your campus host and/or support to enhance pollinator habitat on and off-campus?

3

How many students participated in service-learning projects last year to enhance pollinator habitat on or off-campus?

45



Auburn students install plantings on the roof of Rane Culinary Science Center.



A graduate student prepares to spread wildflower seed for a research plot.

Educational Signage

Auburn University maintains strict standards for campus signage, so no permanent signs have been installed to date. Temporary signs/informational posters we shared included: a sign featuring Auburn's Bee Campus USA designation; signs on how to connect with the Auburn University Bee Lab for more information on research and outreach efforts; various signage at outreach tables of the AU Bee Lab that covers information on bees; and a variety of social media posts on pollinators from units like the AU Bee Lab, Donald E. Davis Arboretum, and the Office of Sustainability.

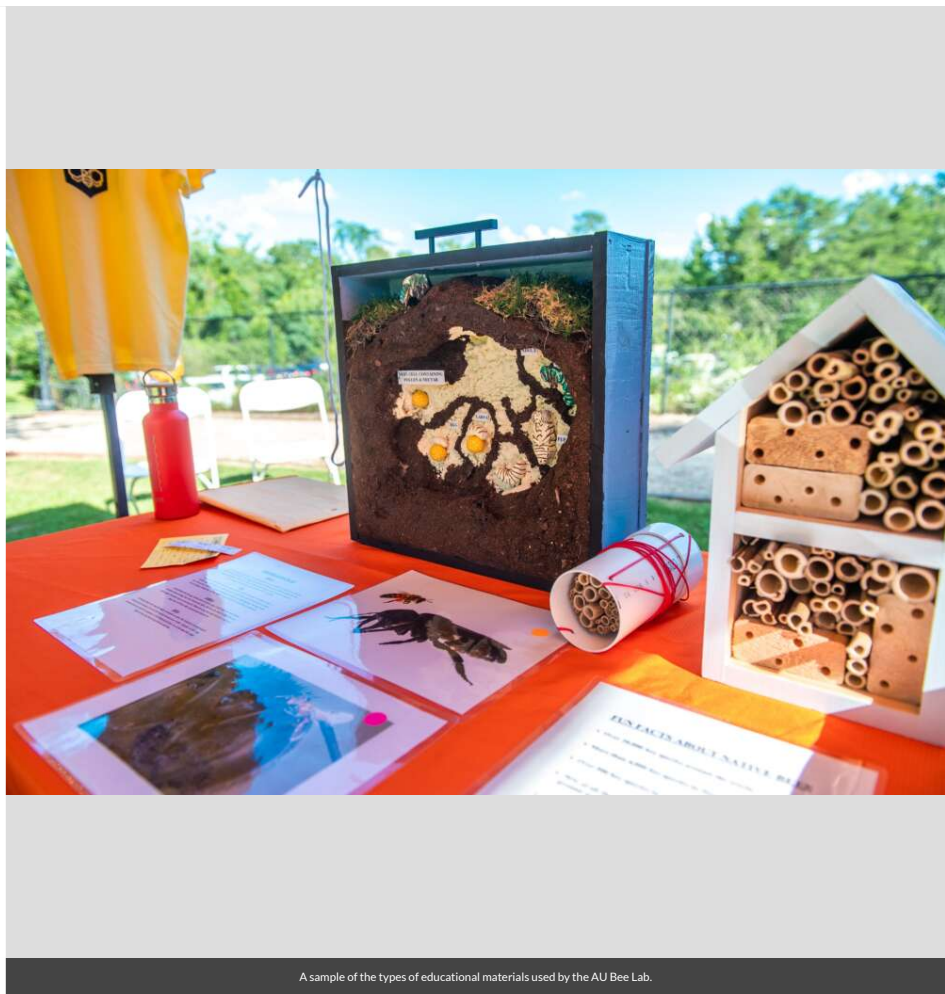
Number of permanent interpretive/educational/Bee Campus USA signs installed to date?

Number of temporary interpretive/educational/Bee Campus USA signs installed last year?

8



Folks who go through the food line at the annual Sustainability Picnic get to learn about our Bee Campus USA designation.



A sample of the types of educational materials used by the AU Bee Lab.

Policies & Practices

The university's Landscape Master Plan and Sustainable Operations Guidelines provide the overarching framework for how Auburn approaches landscape and pest management. The Integrated Pest Management (IPM) Plan operationalizes these frameworks and includes education, exclusion, sanitation, maintenance, biological and mechanical controls, and pre-approved, site-appropriate pesticides. An IPM decision at Auburn University Landscape Services consists of the following steps: 1. Identify pest species. 2. Estimate pest populations and compare to established action thresholds. 3. Select the appropriate management tactics based on current on-site information. 4. Assess the effectiveness of pest management. 5. Keep appropriate records. Decisions concerning whether or not pesticides should be applied in a given situation are based on a review of all available options. Efforts are made to avoid the use of pesticides by adequate pest-proofing of facilities, good sanitation practices, selection of pest-resistant plant materials, and appropriate horticultural practices. When it is determined that a pesticide must be used in order to meet pest management objectives, the least-hazardous material, adequate for the job, is chosen. The IPM Policy and Practices apply to approximately 45% of the landscape actively

managed by Auburn University's Facilities Management. Staff within the Donald E. Davis Arboretum only use pesticides in areas where there is an obvious need. They do not use insecticides broadly across large areas.

What actions have you taken to make pest management practices more pollinator-friendly?

- Implemented or maintained a written IPM plan
- Avoided use of pesticides in public sites containing designated pollinator habitat or other sensitive features (except when targeted use is deemed the best option for invasive or noxious weed, insect or disease management)
- Implemented non-chemical pest prevention and management methods on city or campus grounds
- Reduced the total area of city or campus-managed lands to which pesticides are applied

In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?

No

Please describe actions by your affiliate to attend training on ecologically-based Integrated Pest Management and/or to review IPM plans and programs considered of high quality by Bee City USA?

Staff have attended pesticide university and continue to choose classes for CEUs focusing on organic and natural solutions to pest management.

Integrated Pest Management Plan: [AU IPM Plan.docx](#)

Recommended Native Plant List:

<http://aub.ie/BeeCampus>

Recommended Native Plant Supplier List:

<http://aub.ie/BeeCampus>



Staff used a controlled burn in the Arboretum's pitcher plant bog as a part of their habitat management plan.

Learn More

<http://aub.ie/BeeCampus>