

East Georgia State College

Bee Campus USA Annual Report for 2017

On September 20, 2016, East Georgia State College (EGSC) was designated as a Bee Campus USA Institution and, over the past 15 months, has taken initial strides towards fulfilling its obligations as a member of this organization. EGSC is a small, primarily two-year college, that also offers four-year baccalaureate degrees in Biology, Fire and Emergency Services Administration, and Nursing (RN to BSN). As of January 2018, its main campus, located in Swainsboro, Georgia enrolls 1331 students, while the college's Statesboro and Augusta campuses enroll 1190 and 486 students, respectively. From its foundation in 1973, EGSC has been a very community centered campus. Numerous community events are held on its campuses each year, school groups often visit the college, and many of its faculty and staff are involved in outreach programs. In addition, EGSC serves as host to the Magnolia Midlands Georgia Youth Science and Technology Center (MMGYSTC). The mission of the MMGYSTC, and its director, is to provide quality programs for kindergarten through eighth grade teachers and students that address the educational standards for these grades. EGSC's commitment to environmental awareness and community outreach can be further understood by the actions of its Sustainability Committee and Tree Campus USA Committee, both of which have members that also serve on the Bee Campus USA Committee.

With this community-oriented mindset already well-established, there was little hesitation among EGSC's administration, faculty, and staff in the fall of 2015 to install honeybee hives on the Swainsboro campus (Photos: 1). The initial purpose of the hives was to help educate visitors, as well as the college's students, faculty, and staff about honeybees and their importance to our lives and the threats they face. Since the installment of EGSC's beehives, numerous people have visited the hives on campus and, with the use of a portable observation hive, EGSC faculty and the MMGYSTC director have taken bees and educational material to many events and schools throughout the region. With these outreach efforts already being pursued, there was an immediate interest in applying for membership as a Bee Campus USA Institution once knowledge of this organization and its mission came to the attention of EGSC's faculty, staff, and administrators. Since its acceptance, East Georgia State College has worked even harder to enhance its outreach activities with respect to honeybees and other pollinators, and what follows is a summary of the plans and efforts EGSC has made thus far.

I. Campus Pollinator Habitat Plan

Over the past 15 months, East Georgia State College and the Bee Campus USA committee has taken steps to develop a long-term campus pollinator habitat plan. During this time, the Bee Campus USA committee has held four meetings to discuss the development of a campus-wide integrated pest management (IPM) plan and to prepare a pollinator-friendly plant list for our region. At this time, a description of integrated pest management, and links to sites listing pollinator-friendly plants common to Southeast Georgia have been posted on the Bobcat Apiary webpage: www.ega.edu/bobcat-apiary. Work is currently in progress to further develop this information as it applies to the EGSC campus and its specific region and the site will be frequently upgraded as more information is gathered.

The committee has also discussed plans to enhance the number of pollinator gardens on campus, and steps are in progress to achieve this goal. Dr. David Chevalier, a member of the Bee Campus USA Committee, chair of the Biology Department, and chair of the Tree Campus USA Committee, worked with his students and local middle school students to [refurbish a bog garden](#) on the campus's nature trail containing several native and endangered plant species (Photos: 2). Erin Youmans, another committee member and director of the MMGYSTC, organized an activity/contest for a local middle school class in which its students worked in groups to develop a plan for a pollinator-friendly garden. Each group used math skills to plot out a grid system for their garden, and conducted research into the types of plants to put in the garden, how big they would grow,

and the conditions needed for their growth. The winning group won a \$50 gift card donated by the EGSC Biology Department to use for supplies for their class, and their pollinator garden (Photos: 3) was laid out and planted on East Georgia's campus.

For the upcoming year, plans are in the works to construct a hoop house and eight raised bed gardens featuring native pollinator-friendly plants. Dr. Chevalier, who is also a member of the EGSC Sustainability Committee, wrote and received a grant to fund these projects, which involve local scouts constructing the raised bed gardens and hoop house as part of an Eagle Scout project. Each of the eight gardens will be roughly 8 ft x 4 ft, for a total of 256 ft² of campus green space. To help prepare plants for these gardens, EGSC STEM Club students are currently raising pollinator-friendly plants (Photos: 4) in the campus greenhouse. The goal is to have these gardens constructed and planted before the end of the spring term in April.

II. Annual Campus Events

East Georgia State College hosts many campus events for its students and the community each year, and many of these overlap with and support the Bee Campus USA initiatives. One of the most recent annual events to be established is the celebration of Arbor Day each February hosted by the Tree Campus USA Committee. On February 9, 2017, the first of [EGSC's Arbor Day Celebrations](#) was held on campus with EGSC students, faculty, and staff, as well as community officials and local elementary school students and their teachers (Photos: 5). In all, there were approximately 25 elementary students and perhaps 30 faculty, staff, and community leaders present. During the ceremony, a birch tree was dedicated and planted in honor of Dr. Willie Gunn, former president of EGSC. The elementary students helped to plant the tree and listened to a Georgia Forester about the importance of trees to our lives and the environment and how to care for them. The Georgia Foresters also handed out pollinator-friendly red bud shoots, along with instructions for planting them, to all of the visitors. Another Arbor Day tree dedication is being planned in February 2018.

Another event that EGSC has participated in each October for the past several years is the annual GreenFest event held in the neighboring town of Statesboro (Photos: 6). Since 2016, EGSC has brought its honeybees to this event, giving out wildflower seeds and information about pollinators and the Bee Campus USA organization to the visitors. Based on the success in Statesboro, the EGSC Sustainability Committee is planning to organize a GreenFest event in Swainsboro, Georgia in the spring of 2019. This will hopefully become another annual event to expand our opportunities to increase awareness about pollinators and environmental issues to the community.

From June 19-25, 2017, EGSC recognized National Pollinator Week by posting photos of the Bobcat Apiary, facts about honey bees, and pollinator-awareness information each day on its [Facebook page](#) (Photos 7).

III. Service by Students, Faculty, and Staff

a. School Visitations - Since establishing beehives on campus, the director of the MMGYSTC and I have used a portable observation hive to bring honeybees to many local schools to talk to students about the importance of honeybees and other pollinators to the environment and our lives. Between us, these visits have reached at least 1000 students in our region since September of 2016. It is amazing how excited people get when they see honeybees up close and learn more about them. One visit, in particular, fascinated a sixth grade student so much that she later visited the EGSC campus with her mother and, for the first time, suited up and helped to inspect the hives on campus (Photos: 8). As a result of her experiences, this sixth grade student now has a beehive of her own!

b. Grants for Education and Habitat Improvements - Erin Youmans, the director of the MMGYSTC, has written and received three grants to support "Bee-Cause we Love STEM" Family Science Nights activities to raise awareness, interest, and concern for the loss of honey bees and to connect this issue with the STEM fields.

Besides helping with the purchase and development of innovative educational activities centered on honeybees, Erin's grants have funded the purchase of a [Bee Cam](#) that allows anyone to have a live-view of one of the hives in EGSC's Bobcat Apiary at any time. Her latest grant will be funding the purchase of data collection sensors to place under two of the apiary hives to regularly monitor their weight, temperature and humidity levels. This data can be accessed, monitored, and analyzed by students, both on the EGSC campus and elsewhere.

In addition, Dr. David Chevalier has worked on two grants to fund the establishment of a hoop house and raised bed pollinator gardens on the campus, as well as construction of an outdoor classroom on the campus nature trail near the bog garden. *See I. Campus Pollinator Habitat Plan.*

c. Mason Bee Houses - To help collaborate with, and to spread pollinator awareness to more of the campus community, art students taking Three-Dimensional Design were assigned to research, design, and construct mason bee houses as a project in the fall of 2017. An [artist's showing](#) of their projects was held in the fall, that included a talk of the importance of pollinators to the nearly 30 students, faculty, and staff present (Photos: 9). Since the weather in the fall was not yet suitable for mason bees, their houses, along with pollinator information, have been on display in the campus library, and will be set up in pollinator gardens around campus this coming spring to increase the presence and awareness of mason bees to our community. It is expected that projects such as this will become an annual event with the art students on campus.

d. STEMM Club Students - Students in EGSC's "Science, Technology, Engineering, Mathematics, Medicine" (STEMM) Club have been involved in helping to grow pollinator-friendly plants in the campus greenhouse that will later be planted around campus in raised bed gardens and elsewhere (Photos: 4). *"See I. Campus Pollinator Habitat Plan."*

e. Pollinator Garden Planting - EGSC staff, and the director of the MMGYSTC planted a pollinator garden on the EGSC campus designed by local middle school students (Photos: 3). *"See I. Campus Pollinator Habitat Plan."*

f. GreenFest - Biology students, faculty, staff, and local students have given their time to help educate the community about honeybees and pollinators at the annual GreenFest events held the first weekend in October in Statesboro, Georgia (Photos: 6). Since becoming a Bee Campus USA Institution, EGSC has participated in two GreenFest events, reaching an estimated 750 people from the community. *"See II. Annual Campus Events."*

g. Local Talks – The MMGYSTC director and I have each visited the local Kiwanis Club on separate occasions to talk about EGSC's membership as a Bee Campus USA Institution, and the efforts the college is doing to increase pollinator awareness both on campus and in the community. In addition, the MMGYSTC director has spoken to the local Rotary Club about these projects.

h. Garden Club Event - A faculty member from EGSC brought bees and pollinator awareness information to display at the [Pine Tree Festival Flower Show](#) in April of 2017. The two day event was attended by approximately 150 people (Photos: 10).

i. Parents, Family, Friends and Alumni Days – Each fall EGSC hosts a [Parents, Family, Friends, and Alumni \(PFFA\) Day](#) on its campus for the community. In addition to the usual campus tours and activities for the visitors, recent PFFA Days have also involved honeybees from the Bobcat Apiary, along with faculty and students talking to people about pollinator-awareness and passing out informational flyers and wildflower seeds to visitors (Photos: 11).

j. Building Expansion Dedication – In the fall of 2017, a dedication was held for the expansion of the college's Academic Science Building. The ceremony brought many community leaders to campus, as well as the general public, and EGSC students, faculty and staff (an estimated 300-350 people). Honeybees from the Bobcat

Apiary were on display during this event, and visitors had the opportunity to learn more about EGSC's involvement as a Bee Campus USA Institution, and pick up wildflower seeds and informational sheets about pollinators (Photos: 12).

k. Committee Work - Members of the Bee Campus USA committee have volunteered a great deal of their time to help EGSC fulfill its goal of increasing pollinator-awareness to the community. Victor Poole (Web Service Specialist) has worked many hours on developing the Bobcat Apiary website, Katelyn Moore (Communications Coordinator) has taken hundreds of photos, designed announcements, and advertised events, Michelle Goff and David Steptoe (Directors of Plant Operations) led the set up the Bobcat Apiary, Erin Youmans (Director of the MMGYSTC) has written grants for honey bee education and the purchase of the Bee Cam, and has brought honey bees and pollinator-related activities to hundreds of students in the region, Mike Rountree (Vice-President of IT Services) worked to set up the Bee Cam for the apiary, Jean Schwabe (Director of the Fulford Community Center) has set up community garden shows, science shows, and other events featuring the honey bees, David Chevalier (Chair of the Biology Department and Tree Campus USA Committee) wrote grants for raised bed gardens, and has worked with students to enhance the gardens on campus, Jimmy Wedincamp (Dean of Math/Science) has supported the initial set up of the Bobcat Apiary, Dr. Boehmer (President of EGSC) has been a tremendous supporter of the Bee Campus USA initiatives and has called for meetings to bounce ideas around and help develop long term strategies for EGSC with the aim of increasing environmental and pollinator-awareness education, and Paul Cerpovicz (Committee Chair) has worked to maintain the Bobcat Apiary honey bees, and visited many local schools with the bees. All of the committee members have worked well together in coming up with new ideas, and goals for the campus, and implementing projects.

IV. Courses, Workshops & Course Content Offered At Least Biennially

a. Course Content - For many of the biology courses taught at EGSC, discussions of pollinators and their habitats are already part of the curriculum. Currently, EGSC biology students cover topics on pollinators and their habitats in Biology II, Ecology, Conservation Biology, and Terrestrial Ecology. Students in Biology II discuss the importance of pollinators and run lab simulations on the foraging habits of honeybees. In Ecology, students studied the foraging patterns of the honeybees from the Bobcat Apiary. Students enrolled in Conservation Biology will be discussing pollinators, their habitats, and the threats they face and, when the weather warms enough, will be visiting the Bobcat Apiary to open the hives and study the honeybees up close. As a project in Terrestrial Ecology, students are designing and establishing an edible plant garden on the campus that will service pollinators.

b. Workshops – Up to now, EGSC has not organized any formal workshops on either plants, pollinators, pollinator awareness, or IPM practices.

V. Signage

To this point, EGSC has 24" x 36" Bee Campus USA posters to display on easels at various events, along with informational flyers. Posters depicting pollinators, their importance, and the threats they face have also been created. In addition, a question/answer board was made to "quiz" visitors about their knowledge of honeybees. Due to financial issues, EGSC does not yet have large, "permanent" campus signage displaying itself as a Bee Campus USA Institution. We are currently making efforts to establish funding to have these signs produced and placed around campus. In addition, as the pollinator gardens are established, signage will be made identifying the plants being grown, the purpose of the gardens, the pollinators they support, and the importance of pollinators to the environment.

VI. Webpage

EGSC's Bobcat Apiary webpage (www.ega.edu/bobcat-apiary) currently features information about the Bee Campus USA organization and the college's role as a member institution. Also featured is the MMGYSTC/EGSC Bee Cam providing a 24/7 live view of one of the Bobcat Apiary beehives. In addition, the site has information and links to the MMGYSTC and its activities, as well links to pollinator-friendly plants common to the Southeast, and information on integrated pest management (IPM). Links to news articles, campus pollinator-awareness activities and events, and photos are also available on the webpage. The Bobcat Apiary webpage is a work in progress and will continually be updated as needed.

VII. Pollinator-Friendly Habitat

As stated earlier, a great deal of the past 15 months has been involved with making East Georgia State College an even more pollinator-friendly habitat than it already was. To this point, a new pollinator garden, designed by local middle school students, has been planted on campus, a bog garden has been refurbished, and several other pollinator gardens are being planned. *"See I. Campus Pollinator Habitat Plan."* In addition, a birch tree was planted during an Arbor Day ceremony, and red-bud stalks were distributed to visitors. *"See II. Annual Campus Events."* To help increase the number and variety of pollinators on campus, art students designed and created mason bee houses that will be set up in the spring of 2018. *"See III. Student, Faculty & Staff Service."* STEMM Club students have potted milkweed and other pollinator-friendly plants in the greenhouse that will later be transplanted to raised bed gardens and elsewhere around campus. *"See III. Student, Faculty & Staff Service."* Grant funding is being sought to replace approximately 256 ft² of lawn with ten raised bed gardens to grow native plants, many of which will be pollinator-friendly. *"See I. Campus Pollinator Habitat Plan."*

In summary, East Georgia State College is honored to have been chosen as a Bee Campus USA Institution, and is making every effort possible to fulfill its commitment to promote pollinator awareness on its campus and in the community. This is truly becoming a college-wide effort, with faculty, staff, and students from various disciplines becoming involved, and with EGSC's Bee Campus USA Committee, Sustainability Committee, and Tree Campus USA Committee, as well as the goals of the MMGYST Center nicely complementing and supporting each other. East Georgia is looking forward to implementing the plans it has made thus far, and to continue to expand upon its efforts in the upcoming year.

Paul Cerpovicz

Photos:

(1)



East Georgia State College's Bobcat Apiary - established in 2015.

(2)



East Georgia State College students and Swainsboro Middle School students enhancing the College's Bog Garden.

(3)



Middle School Pollinator Garden on the East Georgia State College Campus.

(4)



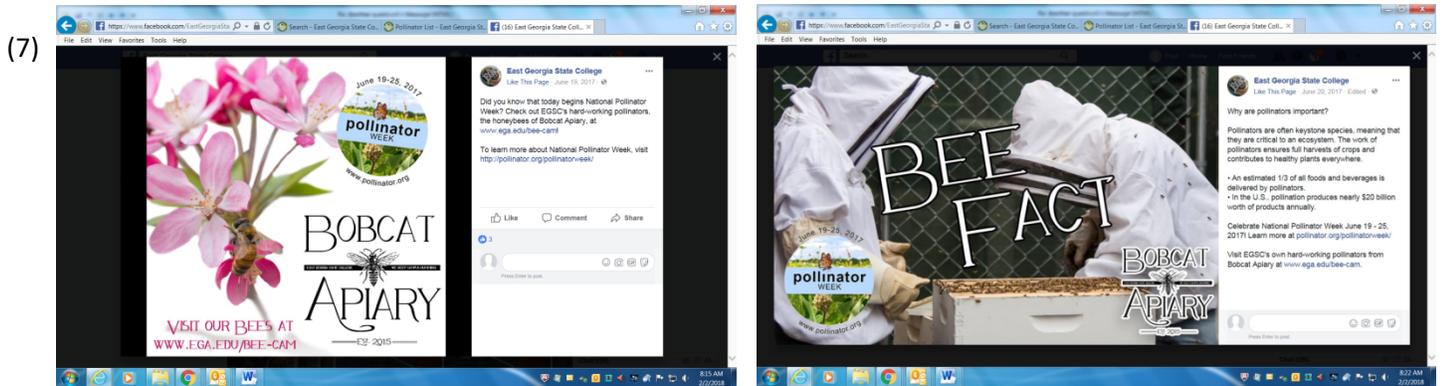
East Georgia State College STEM Club students raising pollinator-friendly plants in the college greenhouse to later transplant into established pollinator gardens on campus.



Arbor Day celebration at East Georgia State College on February 9, 2017, with Swainsboro Primary School students helping to plant a tree in honor of Dr. Willie Gunn - former president of the college.



East Georgia State College participating in the annual GreenFest event in Statesboro, Georgia in October, 2016.



Facebook posts on East Georgia State College's Facebook page during National Pollinator Week (June 19-25, 2017). A unique post was displayed each day during this week to promote the importance of honey bees and other pollinators to our lives.



Sixth grade student visiting East Georgia State College's Bobcat Apiary and working with bees for the first time.

(9)



Presentation of Mason Bee houses created by East Georgia State College art students – November 2017.

(10)



East Georgia State College Bobcat Apiary honeybees at the Pine Tree Festival Flower Show in Swainsboro, Georgia – April 2017.

(11)



East Georgia State College's Parents, Family, Friends, and Alumni Day with the Bobcat Apiary honeybees – September 2016.

(12)



Academic Building expansion dedication at East Georgia State College on August 17, 2017. Approximately 350 people, made up of students, faculty, staff, and community leaders were in attendance, as well as the Bobcat Apiary honey bees!