

Bee Campus USA - Hobart and William Smith Colleges

Report on 2020

Pollinator Habitat Creation & Enhancement

The biggest accomplishment this year was the conversion of turf grass to pollinator patch in two separate areas of campus. The first was a 10x10 area in our student garden. The student garden is a fenced in area that contains several raised beds for vegetable gardening, a perennial herb spiral garden, and a fruit orchard with apples, grapes, and strawberries. At the start of the fall semester, a group of motivated EcoReps wanted to convert an unused portion inside the fence from grass to native plants for pollinators. Starter plants were purchased from a local company, Butterfly Effect, that specializes in native pollinator plants. Species chosen include: Great Blue Lobelia, Cutleaf Coneflower, Joe Pye Weed, Cardinal Flower, Button Bush, Boneset, and Purple Giant Hyssop. Also inside the student garden we added yard and tree debris from campus to serve as habitat for native ground bees and other pollinators. The second pollinator patch was installed between two of our main residence halls on campus. As this was in a prominent part of our campus, it featured a collaboration between the EcoReps, Grounds Department, and Communications Office. However, the motivation and site selection behind the project was all student-driven. After the grass was removed we spread several species of wildflower seeds including: Blue Wild Indigo, False Aster, Lance-leaf Coreopsis, Echinacea, and Prairie Sun Rudbeckia. We also planted bulbs for Bleeding Hearts and Liatris. Then the site was covered in mulch to overwinter. Our third project was the creation of twelve Grow Zones around campus. These are areas that were difficult and/or dangerous to mow, such as steep hillsides or small isolated strips. In these areas the grass was allowed to grow all year, and in the coming months we will be frost seeding a wildflower mix to allow flowers and grasses to grow together. This will provide food and habitat to our pollinators.





Students prepping a pollinator patch inside the student garden.



Students prepping a pollinator patch inside the student garden.



Finished pollinator patch inside the student garden.

Education & Outreach

HWS hosted a series of 4 events titled “Pollination, Pollution and Your Plate.” The programs were focused on mobilizing the commitments of Bee Campus USA on the Hobart and William Smith Colleges (HWS) campus and within the immediate Geneva community by raising environmental awareness and consciousness of pollinator habitats, air quality, and of the need to sustain pollinators.



POLLINATORS, POLLUTION AND YOUR PLATE

POLLINATOR SEEDING PARTY

THURSDAY, APRIL 18, 7 p.m.

at *Cornell AgriTech Building #12 (630 West North Street)*
Come celebrate pollinators with the Growing Geneva Together Community Garden Coalition's 'Seeding Workshop' by planting pollinator seeds! By the end of the party, you'll have your garden pollinator transplants started for the 2019 garden season! All supplies are provided — soil, cells, labels, and seed! Registration not required.

THE CREATION OF A POLLINATOR PATCH

• WEDNESDAY, APRIL 24, 5-7 p.m.

at the *Finger Lakes Institute (801 S. Main Street)*
Pollinator Patch Prep Day

• FRIDAY, MAY 31, 5-7 p.m.

at the *Finger Lakes Institute (801 S. Main Street)*
Pollinator Patch Planting Day

Volunteers will gather to prepare and plant an area to become a pollinator patch on HWS campus, specifically at the Finger Lakes Institute. Tools, gloves, a free gift and refreshments provided. Families are welcome, please dress for garden work. Parking is available on Main Street or in Meadery Lot adjacent to Putney Street, Geneva. Attendees will learn about the value of pollinators, the impact of air pollution on them and the significance of their potential loss to our edible plate. Registration is encouraged by emailing smeyer@hws.edu.

POLLINATOR PLANT GIVEAWAY

SATURDAY, MAY 18, 10:30 a.m.

at *East Lakeview Community Garden (70 Clark Street)*
Join the Growing Geneva Together Community Garden Coalition at their 'Planting Party' event and select a few pollinators for your garden. Many pollinators improve our edible and floral gardens! Attendees can select from a variety of transplants to get their garden started and learn how to properly plant and care for them. Pollinator plants will be available until supplies run out. Attract pollinators while adding a bit of color to your garden and plate! Registration not required.

POLLINATORS, POLLUTION, AND YOUR PLATE—A CHILDREN'S PROGRAM ON CLEAN AIR DAY!

THURSDAY, JUNE 20, 4-6 p.m.

at *HWS Fribolin Farm (56 White Springs Lane)*

Local middle and high school students (and their curious guardians) are invited to learn more about pollinators, specifically honeybees and beekeeping! Student participants will have the opportunity to learn about the impacts of air pollution on our pollinators. They will view a honey bee hive, make clay 'seed bombs' for their home garden, play the game 'The Story of Bees,' and enjoy a honey tasting representing different varietal honeys from the Finger Lakes region. Students will visit pollinator habitat spaces on HWS Fribolin Farm and investigate foods made possible by pollinators. Registration required by emailing smeyer@hws.edu by June 17.

These free, open to the public events are coordinated by the Finger Lakes Institute Food Systems Program through support received from the Genesee Finger Lakes Chapter of the Air & Waste Management Association in coordination with Bee Campus USA-HWS, HWS Fribolin Farm, the Growing Geneva Together Community Garden Coalition, and the Cornell Cooperative Extension of Ontario County Master Gardener Volunteers. To learn more, contact Sarah Meyer, FLI Food Systems Program Manager at smeyer@hws.edu.

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FINGER LAKES
INSTITUTE



Flyer used to promote our events.



Students from the local Boys & Girls Club spend the day learning about pollinators and made their very own "bee hotel" to take home and provide habitat for native bees.

Courses & Continuing Education

Please see the attached file that explains the topics and information for courses offered at HWS that discuss pollinator-related information.



**XERCES
SOCIETY**
for Invertebrate Conservation

Code	Course	Term	Prof/Instructor	Enrollment	Details
95L	998	Environmental Science	11	West	West Invertebrate We cover both Kingdoms, which includes Kingdoms (plant dispersal) and continue (pollinator species). Lab sites at least cover the Bay Center that discuss pollination by hummingbirds and other neotropical birds.
95L	200	Bee in Our Backyard	18	West	West Invertebrate Learning population trends and geographical distributions of birds, mammals, or amphibians is essential to understand the impact of urbanization, pollution and pesticides, climate change, and more. In this course, you will learn how distributions of birds, mammals, amphibians, and reptiles are affected by environmental change and the impact of change on the function of ecosystems and agricultural production. You will learn, fieldwork through field observations and captures, to identify field bird species and learn to conduct common field techniques for about monitoring of birds.
95L	200	Wildlife Management	15	West	West Invertebrate We discuss the frequency and variability of local (nearshore) pollinators, which are high in the Australia ecosystems.
95L	207	The Secret Life of Bees	23	Smith	Smith This is an introductory biology course that covers most topics in biology through the use of the biology, ecology, and evolution. Lectures and lab-related topics include: bee diversity and evolutionary history, bee social and solitary lifestyles, including features of eusociality, pollination from the perspective of these pollinators, bee anatomy and adaptation to pollination, and queen inheritance and distribution on bees and its implications for sexual selection and why bee colony health. In addition to using a general introductory biology textbook, students also read research of a blog on the life of bees.
95L	206	Environmental Science	23	Smith	Smith We do a lab where we identify pollinators, map pollinators, flower characteristics, and examine and discuss different types of pollen.
95L	211	Food Systems in History	30	Smith	Smith We spend a few lectures to discuss the importance of both pollinators to the production and diversity of apples and other crops.
95L	207	Plant and People	21	Shawyer	Shawyer This course explores the basic biology of plants and emphasizes the ways in which humans and plants are similar and different with a focus on how we use and respond to the world around us, all while covering all of the core principles of biology. We always spend several lectures on insect pollination and pollination systems.
95L	208	The Biology of Earth	18	Shawyer	Shawyer The diversity of plants is enormous, ranging from microscopic phytoplankton to trees more than 100 feet tall. Using an evolutionary approach, we study the life cycle of plants and follow the development of plants from the earliest photosynthetic eukaryotes to complex flowering plants. Topics include reproduction and pollination, plant structure and function, plant anatomy, phylogeny, and ecology.
95L	207	Biology	24	Hughes	Hughes This course is an introduction to ecological theories as they apply to individuals, populations, communities, and ecosystems. Topics covered include physiological ecology, population dynamics, competition, predation, community structure, diversity, and the movement of material and energy through ecosystems. Introduction is given to the biology course and discuss local and discuss regional pollination and their place in the food web and ecosystem.

Pollinator classes



Student from the Secret Life of Bees course looking at a shelf of a hive from a local beekeeper.



Student learning and looking at different types of pollen collected from a field lab.

Service-Learning

The installation of our pollinator patches were service-learning projects. Students volunteered their time and labor to create the pollinator patches that provide a service to our campus and a service to our pollinators. However, these projects were not just about providing labor. The students had to propose several locations to campus stakeholders and justify proposals. Through this process they learned how to engage with different campus departments and different personalities as well as how to use their feedback to find compromises and come up with the final solution. This helped the students develop intangible skills and understand the steps necessary to make change on campus and in their communities. Further, they researched and developed a list of native plants that are used by a variety of pollinators and then narrowed it down based on what plants work well for the different sites (soil type, sun exposure, moisture levels, etc.). Lastly, they learned different planting techniques including starting plants from seeds, bulbs, and transplanting seedlings while also learning which species had to undergo cold stratification.





This is a screenshot from the Instagram page of the President of HWS. She came to show her support for our Bee Campus USA certification and applaud the students for their hard work in making their project a reality.

Educational Signage

As part of the 12 Grow Zones built around campus we added a sign to each one. While the signs would be considered temporary, they were up all summer and fall and only taken down for the winter months. We plan to put the signs back out in spring time as a constant reminder to students, employees, and visitors of our initiatives to help make our campus more pollinator friendly. <https://www2.hws.edu/grow-zones-established-on-campus/>



This area has been designated as a **GROW ZONE**

WHY IS THE GRASS TALLER HERE?

By allowing the grass to grow naturally we are:

- Increasing habitat
- Promoting sustainable landscaping
- Reducing emissions
- Improving storm water run off
- Providing area for observation and learning



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Close up of what our Grow Zones signs on campus say.

Policies & Practices

On campus we follow an integrated pest management program. This means that we only use pesticides when absolutely necessary and after mechanical measures are utilized. These applications aid in cutting down unwanted invasives or undesirable plants from taking over beneficial plants, such as flowering perennials. These applications are also utilized to cut down on trimming. This helps reduce emissions produced by weed trimming machines. All applications are done according to New York's Department of Environmental Conservation policies and are recorded and submitted yearly. Our grounds staff has several licensed applicators on our team. Each applicator has to attend several continuing education classes to keep this license. Additionally, we have selected areas on campus dedicated to be Grow Zones that will allow for increased habitat, emissions reduction, and pollinator growth.



Integrated Pest Management Plan: [HWS IMP plan.pdf](#)

Recommended Native Plant List: [HWS native plants and suppliers.pdf](#)

Recommended Native Plant Supplier List: [HWS native plants and suppliers.pdf](#)



A dedicated Grow Zone located on campus.

Learn More

<https://www2.hws.edu/sustainability/projects-operations/#spaces>

<https://www.facebook.com/GreenHWS/>

<https://www.instagram.com/greenhws/>

<https://twitter.com/GreenHWS>

