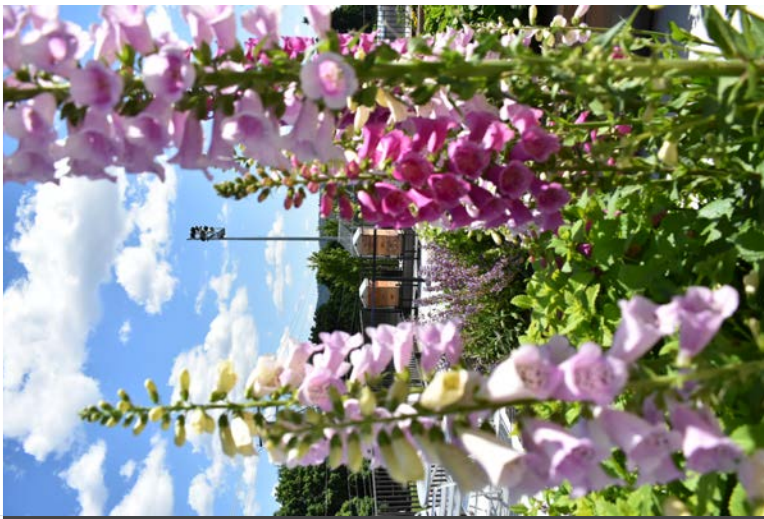


Bee Campus USA - Gonzaga University

Report on 2020

Pollinator Habitat Creation & Enhancement

Last spring, a few students and committee members transplanted several goldenrod plants to provide more pollinator habitats around campus. Unfortunately, due to COVID-19 and our students being gone from campus starting in April, this was the only opportunity we had to host an event. As a community, we supported our grounds crew by planting all the campus flowers this year. Surprisingly, the pandemic allowed our committee to spearhead the creation and enhancement of our pollinator habitats with our grounds crew, as most people were not on campus. This activity allowed us to enhance current habitats and create new areas for pollinators to thrive.



Flower Bed and Hives at Gonzaga University



One of several pollinator habitats on Gonzaga University's campus

Education & Outreach

In 2020, as a result of the covid-19 pandemic, Gonzaga University was able to hold one pollinator-related event and that was our annual honey extraction. Two beekeepers were present to conduct the extraction, but 10 individuals tuned in via Zoom to watch and learn about the process. During the virtual event, our beekeepers talked through their actions and explained exactly what they were doing. Near the end of the event, we conducted a brief Question and Answer session, where students shared their interests and asked how to get involved in the future. Annually, Gonzaga University would host their Bee Aware event during Earth Week which showcases different pollinators and their contribution to our lives. The event would feature local beekeepers and association members who would inform students and other passersby



about the importance of bees and other pollinators. One other event that did not occur was a lesson on winterizing apiaries. As soon as covid restrictions are lifted and we find ourselves in a sense of normalcy, we intend to bring these events back to campus.



Honey Extraction Event



Honey Extraction into our small bear-shaped jars to provide to the community.

Courses & Continuing Education

At Gonzaga, we offer four classes which cover pollinator-related information:

- Ecology - Different instructors teach the Ecology course within the Biology Department, each covering pollinators to a different extent. At a minimum, students gain information on plant-pollinator mutualisms.
- Animal Behavior - The dance language of honeybees is used as an example of animal communication, and other aspects of bee biology are taught.
- Entomology & Entomology Lab - Pollinators were a recurring topic in the course. In addition to learning general features of insects that are found among insect pollinators, students learn about haplodiploidy, coevolution of pollinators and plants, pollinator syndromes, pollinator diversity and crop production, honeybee communication, bee sociality, the economic value of pollinator services, pollinator habitats and conservation. Students learn to identify certain insects to the taxonomic family level, and learn to distinguish bees from wasps. In the laboratory course, students assemble insect collections of either physical or photographic specimens, record field notes on most of their specimens, identify them to taxonomic family if possible and find insects that have various ecological characteristics. Collections generally, include at least one pollinator.
- Directed Research - The project focuses on an introduced solitary bee (*Anthidium manicatum*) that has males that attack other insects and drive them away from flowers. These classes were held in the spring as well as the Fall of 2020, with 15 students in each class.



Service-Learning

Unfortunately due to the pandemic, all classes were online and there were no service learning projects available.

Educational Signage

The educational signage placed in our pollinator habitats across campus identifies the plant, gives a brief description of it, and highlights the specific pollinator that could benefit from it.



Educational Signage in one of our pollinator friendly flower beds at Gonzaga University



Two of our signs in our pollinator habitat



More signage in our garden

Policies & Practices

In collaboration with the grounds team at Gonzaga University, our committee coordinated efforts for using more selective weed control methods in the pollinator habitats on campus. These efforts included reducing pesticide use and increasing manual labor for the removal of weeds. We have found that our enhancements to the pollinator habitats have flourished and has been received well by our honeybees and other local bees in the area. The grounds crew only uses herbicides on campus and has eliminated the use of all insecticides, as well. We have found that the efforts made has increased the amount of local bees to the area which indicates what we are doing is working.



Integrated Pest Management Plan:

Recommended Native Plant List:

Recommended Native Plant Supplier List:

[Learn More](#)



A few committee members suited up from Fall of 2019 before COVID.

