Bee Campus USA Annual Report
Pollinator Conservation & Education
2019

Gonzaga University
Spokane, Washington

EDUCATION & OUTREACH

Students are excited about making planting pots and listening to volunteers about the importance of bees at Bee Aware 2019

Gonzaga students observe bees in a small apiary

Beekeeper Dan Harris talks to kids about the importance of bees while they observe the bees outside

Kids look at a beekeeper holding a spall apiary of bees

Students watch as Dan Harris teaches about bee honey extraction and winterization

Earth Day Awareness - April 22
Inland Empire Beekeepers Association Conference - November 16
Honey Extraction and Winterization Seminar - October 26
Honey Bee Question and Answer Sessions - May 15, June 19, July 17, August 21, September 18

POLLINATOR HEALTH & HABITAT

Students preparing the foundation for the new pollinator habitat. The preparation involves reducing noxious weeds and increasing native plant populations in the area, which is unofficially referred to as the Space for Insect Live Observation (SILO).

The enhancement involves reducing noxious weeds and increasing native plant populations in the area, which is unofficially referred to as the Space for Insect Live Observation (SILO).

SERVICE LEARNING

The Bee Campus Committee at Gonzaga has provided a few different opportunities for Gonzaga students to learn about bees and other pollinators. These include having informational tabling sessions during the day, Bee Aware 2019 (last year's main event), and having information about how to extract honey from apiaries and prepare them.

CURRICULUM & CONTINUING EDUCATION

Four courses in the Biology Department included pollinator-related information.

Biology 206 Ecology: Different instructors teach the Ecology course within the Biology Department, each covered pollinators to a different extent. At a minimum, we included information on plant-pollinator mutualisms. Some sections included more information on pollinator social behavior.

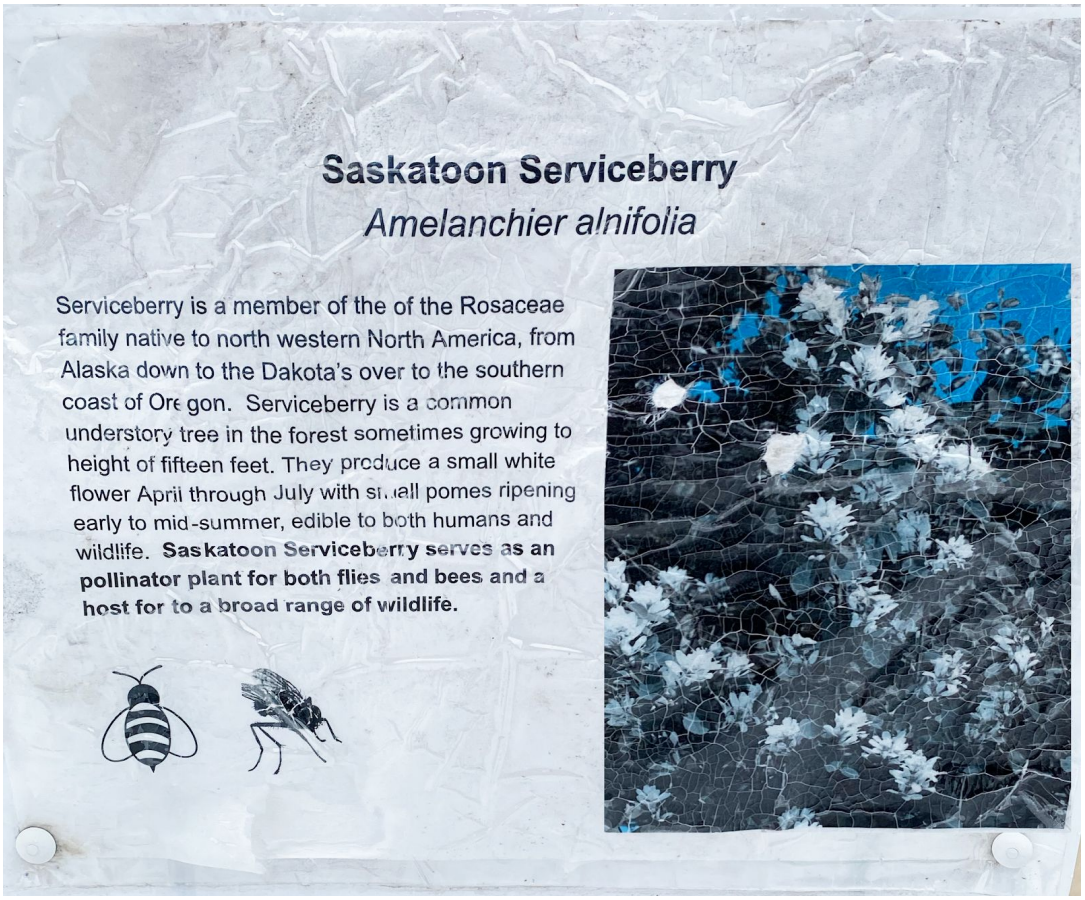
Biology 313 Animal Behavior: The dance language of honey bees was used as an example of animal communication, and other aspects of bee biology were discussed.

Biology 367/367L Entomology and Entomology Laboratory: 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, honey bee 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 thus learn to distinguish bees from wasps. In the laboratory course, students assemble insect collections of either physical or photographic specimens. Students record field notes on most of their specimens, and identify them to taxonomic family if possible. Students are also instructed to find insects that have various ecological characteristics, so collections generally include at least one pollinator.

Biology 498 Directed Research: During 2019, three students continued a research project on pollinator ecology. The project focuses on an introduced solitary bee (Anthidium manicatum) that has males that attack other insects and drive them away from flowers. Our field site is Gonzaga's campus. During Summer 2019, students observed wool-carder bees attacking or harassing honey bees, bumble bees, wasps, flies, and even a large butterfly. Students undertook a variety of baseline, observational studies. By observing bees at flowers that were planted at different distances from the honey bee hives at the Hemmingson Center, students found that as distance to the hives decreased, the number of honey bees visiting the flowers increased, and that the number of attacks by wool-carder bees also increased. In addition, using small, numbered, tags to mark individual wool-carder bees, students kept track of bee distribution on different days and evaluated how consistently they were associated with particular garden beds.

EDUCATIONAL & INTERPRETIVE SIGNAGE

Currently, 9 signs identifying native species are planted in the pollinator-friendly garden.



An educational sign describing the Saskatoon Serviceberry tree. The Saskatoon serves as a pollinator plant for both flies and bees, as well as a host for a broad range of wildlife.

POLICIES & PRACTICES

When new plants are selected, they are chosen based on which ones are appropriate for the microclimate in Spokane. Gonzaga University uses environmentally friendly products when managing pest problems, and may adopt an organic pest management and policy practices using the least toxic pest control products as the last resort depending on the situation. This reduction of toxic products creates a more pollinator-friendly environment.

Recommended Locally Native Plant Species List — https://www.pollinator.org/guides

Regional Native Plant Supplier List — https://www.pollinator.org/guides

Pollinator Friendly Integrated Pest Management Plan —
http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=14

CONTACT US!

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Website —
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Social Media — https://www.facebook.com/HemmingsonCenter/ & @guhemmingson on Twitter