

Phone (410) 553-1245
E-mail vfl5063@psu.edu
valeria.lee01@gmail.com
10 Vairo Blvd. Apt. 215-C
State College PA 16803

Valeria Lee

Education

- Pennsylvania State University (Ph.D. in Entomology. 2023-present). State College, PA.
Advised by Dr. Erika Machtinger.
- Canisius College (Major in Animal Behavior, Ecology and Conservation. Minors in Environmental Biology and in Conservation. 2019-2023. GPA: 3.98). Buffalo, New York.
Advised by Dr. Katie Costanzo.

Research

- *Development of bed bug monitoring tools for poultry facilities.* November 2023 - present.
Research under the supervision of Dr. Erika Machtinger.
 - In-farm collections of bed bugs (*Cimex lectularius*) from poultry facilities.
 - Bed bug colony care and feeding, set-up of infestation trials with poultry.
- *Timing of developmental cycles of Aedes and Culex mosquitoes across the United States.*
2022 - May 2023. Research under the supervision of Dr. Katie Costanzo.
 - Field sampling and weekly monitoring of *Aedes* and *Culex* eggs, setup of BG-Sentinel CO₂ baited traps for the trapping of adult host-seeking insects.
 - Setting up trays with nutrient broth to hatch eggs and sieving the one-day old larvae into another container with a lactalbumin/whey protein mixture.
 - Bleaching of eggs and identification of pharate larvae under a dissecting microscope.
- *Effect of temperature on the activity and movement of Asian tiger mosquitoes (Aedes albopictus).* 2021-2022. Research under the supervision of Dr. Katie Costanzo.
 - Feeding mosquitoes with horse blood wrapped in pig intestine, heated using HemoTek technology.
 - Setting up of cameras for recordings of mosquito movement.
 - Setting up individual containers and providing sugar water for the mosquitoes to be separated.

Qualifications and Skills

- Experience with use of a dichotomous key for insect identification (Hymenoptera: Cynipidae, Diptera: Culicidae), Culicidae spp. development and trapping (BG-Sentinel CO2 baited traps), aquarium/terrarium care, and animal welfare.
- Expertise in speaking, reading, and writing in Spanish.
- Proficiency in graphic design, robotics, video game programming.
- Knowledge in R programming, Microsoft Word, Excel, PowerPoint, Photoshop, and Illustrator.

Awards and Memberships

- Member of the winning team of the 2023 National Entomology Games of the Entomological Society of America. College-bowl style trivia competition.
- Kristen M Brady Award for Excellence in All College Honors Thesis. 2023. Awarded to the student who has written the best thesis that year.
- ABEC Exemplar Award. 2023. Recognizes the senior in the ABEC (Animal Behavior Ecology Conservation) program who embodies the Canisius College ideals of excellence in the classroom, outstanding scholarship, and a dedication to making a better world, by advancing the fields of animal welfare and wildlife conservation.
- Ignatian Scholarship
- Member of the Entomological Society of America (ESA) 2022 - present.
- Canisius Earning Excellence Program (CEEP) Award. 2022 - 2023. Canisius College. Buffalo, NY, USA.
- Canisius Science Scholars Scholarship. 2021 - 2023. National Science Foundation S-STEM program, USA.
- Maryland Seal of Biliteracy (English and Spanish) 2018. Maryland, USA.

Posters and Presentations

- Lee V., Phillipone A., Costanzo K. S., Westby K., 2023. Timing of developmental cycles of *Aedes* and *Culex* (Diptera: Culicidae) across the United States. **Poster**. Eastern Branch Meeting of the Entomological Society of America. Providence, RI.
- Lee V., 2022. Why Wasps are Important and How Human Perception has Harmed Wasp Conservation. **Honors Thesis**. Canisius College's Thesis Defense Week. Buffalo, NY.
- Lee V., Westby K., and Costanzo K. S., 2022. Timing of developmental cycles of the tiger mosquito, *Aedes albopictus*, across the United States. **Poster**. Canisius College's 15th Annual Ignatian Scholarship Day. Buffalo, NY.

- Lee V., 2022. Differences in the egg-laying range of monarch butterflies, *Danaus plexippus*, over time in the United States and Canada. **Poster**. Canisius College's 15th Annual Ignatian Scholarship Day. Buffalo, NY.

Work History

- September 2021 - May 2023 - Lab research with medical entomologist Dr. Katie Costanzo, developmental cycles of *Aedes* and *Culex* mosquitoes and the effect of temperature on the activity and movement of Asian tiger mosquitoes (*Aedes albopictus*). Canisius College, Buffalo, NY.
- January 2020 - May 2023 - Work/Study for the Fine Arts Department in *Canisius College* - designing flyers, editing images, office work, etc. Buffalo, NY.
- January 2022 - May 2022 - Teacher's assistant for ABEC 102 (Intro to Animal Behavior II).
- December 2021 - May 2022 - Spanish conversation assistant. Canisius College, Buffalo, NY.
- Summer 2021 - Science teacher for middle school students. *Center of Help* (non-profit organization for immigrants and low-income families). Annapolis, MD.
- Fall 2020 - Podcast: Canisius Conservation Conversations - editing audio for a conservation/ecology podcast, Buffalo, NY.
- November 2017- Translator for the environmental forum for the *Center of Help* in partnership with the *South River Federation*. Annapolis, MD.

Volunteer History

- Spring 2022 - Spring 2023 - Volunteer assistant in the creation of a pollinator garden, composting, identifying pollinators by taxonomy. Canisius College, Buffalo, NY.
- Summer 2022 - Volunteer entomology teacher for middle and high school students (in Spanish). DigiTalent School. Jalisco, Mexico.
- Summer 2022 - Shadowing at the USDA-APHIS Plant Protection Quarantine program. Laurel, MD.
- Summer 2020 - Volunteer for a COVID-19 program (food distribution and resources for families in need). *Center of Help* (non-profit organization for immigrants and low-income families). Annapolis, MD.
- Summer 2019 - Volunteer for a summer program for kids ages 6-14. *Center of Help*, Annapolis, MD.

- Summer 2019 - Volunteer for the *Pass, Pick and Play* program, to provide used and gently-used sports equipment for low-income families. Annapolis, MD.
- July 2018 - Volunteer teacher's assistant for elementary kids at Vacation Bible School. *Our Shepherd Lutheran Church*. Severna Park, MD.
- Spring 2018 - Volunteer for the food distribution program at the *Center of Help* in partnership with the *Maryland Food Bank*. *Baptist Heritage Church*. Annapolis, MD.
- Summer 2015. Volunteer: *Hogares de la Caridad* (non-profit organization). Jalisco, Mexico. Helping with the care of kids and teenagers with cerebral palsy.