

Brooke Donzelli

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RESEARCH INTERESTS: Ecology, Evolution, Pollination biology, and Plant/Pollinator/Pathogen interactions

EDUCATION

The University of Massachusetts Amherst Sept 2019-May 2022

B.S. Biology

- College of Natural Science
- GPA= 3.5

RELATED WORK EXPERIENCE

University Of Massachusetts Amherst September 2019-May 2022

Undergraduate Research Assistant- Adler Lab

- Work as a Research Assistant focused on Biology, Ecology, and Plant/Pollinator interactions
- Dissect bumble bees and search for parasites and pathogens in guts using a microscope
- Collect bumble bees' gut homogenate through dissection to search for parasites and pathogens
- Handle live bumblebees
- Create pollen microscope slides to be analyzed by professors.
- Maintained data in an organized and detailed manner using data sheets and Microsoft Excel
- Provided remote lab management support during COVID-19 pandemic by purchasing lab supplies and equipment for the lab using Buyways, and coordinating between vendors and lab members

Rutgers University April - August 2021

Laboratory Technician- Winfree Lab

- Prepared and mounted pollen samples on microscope slides
- Pinned and curated insect specimens
- Managed data on sample preparation, slide-making, and insect curation
- Maintained supplies, lab space, and sample organization
- Trained in forest bee and pollen identification

INDEPENDENT RESEARCH

University of Massachusetts Amherst

Senior Thesis- Adler Lab

September 2021- May 2022

- Conducting senior thesis on how different chemotypes of the plant *Monarda fistulosa* affect *C. bombi* infection in *B. impatiens* through diet assays

RELATED COMPLETED COURSES

- (Bio 151) Intro Biology for Biology Majors- 4 credits
- (Bio 152) Intro Biology for Biology Majors 2- 3 credits
- (Bio 153) Intro Biology Lab- 2 credits
- (Bio 398T) Biology Lab Practicum- 1 credit
- (Chem 111) General Chemistry and Lab- 4 credits
- (Chem 112) General Chemistry and Lab- 5 credits
- (Res Econ 212) Intro Statistics and Social Sciences- 4 credits
- (Bio 287) Ecology- 3 Credits
- (Bio 280) Evolution- 3 Credits
- (Bio 311) Genetics- 3 Credits
- (Bio 285) Cellular and Molecular Biology- 3 Credits
- (Bio 312) Bio Writing- 3 Credits
- (Bio 401) Great Papers in Biology- 4 Credits
- (Orgo 203) Organic Chemistry 1- 5 Credits
- (Chem 204) Organic Chemistry 2- 5 Credits

IN-PROGRESS COURSES (FALL 2021)

- (Bio 422-01) Field Ecology: Experimental Approach- 4 credits
- (Bio 422-01LL) Field Ecology: Experimental Approach Lab
- (Bio 797) Molecular Ecology Graduate Reading Group- 1 credit
- (Bio 597) Evolution Genomics and Bioinformatics- 4 credits

SKILLS

- Microscopy (ie: bumble bee dissection, searching for conopid fly larvae in *Bombus* gut tissue, counting *Crithidia bombi*, pollen grain counting, taking pictures of specimens and slides using microscope camera/computer program, and pollen identification)
- Creating microscope slides, specifically preparing pollen slides with glycerine jelly
- Basic biology lab skills (i.e.: pipetting, centrifuging, sonication, following lab procedures, keeping organized data sheets)
- Bee specimen preparation and pinning
- Bee identification by genus
- Experience using Microsoft Office and Google applications.
- In the process of learning Python, Java, and RStudio

JOB-RELATED TRAINING

- Lab Safety Training, 2021, Environmental Health Services University of Massachusetts Amherst
- Biohazard Safety Training, 2021, Environmental Health Services University of Massachusetts Amherst
- Fire Safety Training, 2021, Environmental Health Services University of Massachusetts Amherst

AWARDS

- Outstanding Research Award, UMass Amherst Biology 2022

REFERENCES

Dr. Lynn Adler

Title: Professor at UMass Amherst and head of the Adler Pollinator Lab

Company: UMass Amherst

Relationship: Principal Investigator

email: lsadler@umass.edu

Dr. Rosemary Malfi

Title: Post Doc Supervisor at the Adler Pollinator Lab

Company: UMass Amherst

Relationship: Former Supervisor

email: rmalfi@gmail.com

Lucia Weinman

Title: PhD candidate at the Winfree Lab

Company: Rutgers University

Relationship: Former Supervisor and Instructor

email: luciaraw@gmail.com