

Emily Schloss

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EDUCATION

BRIDGEWATER COLLEGE

Bridgewater, VA

Bachelor of Science, Biology Major (Expected graduation: December 2022)

Current GPA: 3.5

Relevant Coursework:

- *Molecular Biology*: Performed gene-cloning project entitled “Cloning of the suspected 12 α -hydroxysteroid dehydrogenase of methanobrevibacter smithii into E.Coli” and summarized findings in a final report.
- *Ecology*: Performed field research entitled “American Sycamore growth in relation to proximity to nearest water source” and created a video to present findings
- *Intro to Geographic Information Systems*: Studied the applications of GIS, focusing on the cartographic capabilities of ArcGIS
- *Genetics*: Designed and created an infographic titled “Can CRISPR Cure HIV?”
- *Evolution*: Prepared and delivered a 30-minute interactive presentation on the Evolution of Eusociality
- **Awards & Honors**: William Brown Scholarship, L. Daniel & Louise Burtner Scholarship, Warren & Elizabeth Crummett Scholarship, Herman & Frances Miller Scholarship, TREB research award recipient, Dean’s List
- **Extracurricular Activities**: President of Tri-Beta Biology Honors Society, manager and lead singer of combined faculty and student band, Concert Choir, and Chorale.
- **Memberships**: Society for Developmental Biology, American Society for Cell Biology

RESEARCH EXPERIENCE

National Science Foundation IRES Award

Macquarie University, Australia

Tephritid fruit fly Multidisciplinary Australian Research Collaboration for Biosecurity

June 2022 - July 2022

Assessing quality control measures of yellow strain and grayscale strain of Queensland fruit fly

Independent Research & Honor’s Thesis

Bridgewater College

Interaction Between Metabolic Rate and Limb Regeneration in Axolotls

Sept 2021 - Present

- Performed surgical limb amputations (axolotls)
- Monitored and recorded (photographic & notes) stages of the limb regeneration process
- Designed a spreadsheet to convert gas exchange data into an estimate of metabolic rate

Virginia Foundation for Independent Colleges Undergraduate Research Award

Bridgewater College

The Research Experience at Bridgewater Research Award

June 2021 - Aug 2021

How Does Water Temperature Affect Metabolism in Axolotls?

- Collected and analyzed respirometry data to estimate metabolic rates of axolotls under varied environmental conditions
 - Managed rotations of respirometry trials
- Surgically implanted miniature probes to accurately measure internal axolotl body temperature under varied environmental conditions to test the limits of ectothermy in axolotls
 - Pioneered surgical implantation and extraction techniques of temperature probes in this species
- Wrote a final research report for the donors of the project

COMPUTER & COMMUNICATION

Bridgewater College Arts, Scholarship, Performance, Innovation, and Research Excellence (ASPIRE) Celebration

Bridgewater College

April 12, 2022

- Gave a presentation summarizing research findings. Titled “Interaction Between Metabolic Rate and Limb Regeneration in Axolotls”

Virginia Academy of Science Conference

Hampden-Sydney College, VA

- Prepared and presented a proposal poster for future research on axolotl metabolism
- Gave a short presentation on axolotl regeneration to all conference attendees

Oct 30, 2021

WHSV News

- Appeared on a television segment regarding my research on axolotl regeneration

Bridgewater, VA*July 26, 2021***Computer Skills**

- Proficient with Microsoft Excel - spreadsheet design, organizing, and analyzing scientific data
- Proficient with Microsoft PowerPoint in producing educational and scientific presentations
- Basic ArcGIS ability

WORK EXPERIENCE

Biology Department*Animal Care and Housing Maintenance***Bridgewater College***Jan 2020 - Present*

- Responsible for the care of 100+ axolotls, including feeding, tank cleaning, health monitoring, and record-keeping
- Preparation of salt solutions for animals' housing

Inclusion, Diversity, Equity and Advocacy Center*Eagle Success Mentor***Bridgewater College***Sept 2020 – Jan 2022*

- Paired with four freshmen mentees to assist through their first year of college
- Organize weekly meetings with mentees to discuss how to work around potential setbacks and feel more integrated into their community

Congressional School*Day Camp Counselor***Falls Church, VA***June 2016 - Aug 2020*

- Responsible for leading a group of 16-30 campers throughout day-to-day activities
- Integral in facilitating teamwork and collaboration among campers

Montessori of Chantilly*Assistant Teacher***Dulles, VA***Sept 2018 - May 2019*

- Managed all front desk and receptionist responsibilities
- Formulated the master summer camp plan for all teachers, including proposed budget, activities, and supplies list
- Proposed a budget, designed, and executed the school's annual holiday festival