**Rebecca R. Piche**

1 Macklem Drive Phone: (999) 999-9999

Wilmore, KY 40390 Email: any.student@asbury.edu

Asbury University

**Academic Preparation**

**B.A., Biology, Asbury University**  Current GPA: X.XX

Asbury University, Wilmore, KY

**Career Goals**

To obtain a bachelor’s in biology, and a master’s in marine biology that prepares me to pursue a career as an aquatic biologist ideally working in a marine setting.

**Research Funding**

EKU Division of Natural Areas Grant in Aid of Research – Rebecca R. Piche and Ben F. Brammell. Comparison of leaf litter bag and environmental DNA in detection of salamanders in Maywoods Environmental and Educational Laboratory. Awarded June 2021, $459.

**Publications**

Brammell, Ben F., Elizabeth K. Strasko, Sara A. Brewer, **Rebecca R. Piche**, Cierla M. Sams, Cy L. Mott, Malinda A. Stull. 2023. Detecting fossorial salamanders using eDNA; development and validation of quantitative and end-point PCR assays for the detection of five species of *Ambystoma*. Conservation Genetics Resources 2023. <https://doi.org/10.1007/s12686-023-01322-6>

Strasko, Elizabeth K., **Rebecca R. Piche**, and Ben F. Brammell. 2023. Development and validation of PCR primers for detecting *Ambystoma texanum* (smallmouth salamander) from eDNA samples. Tennessee Journal of Herpetology 6:4-18. <https://www.tnherpsociety.org/copy-of-template-12>

**Presentations**

**Piche**, **Rebecca R.**,Eliza M. Crawford, and Ben F. Brammell. 2021. Multiple methods of detection of semiaquatic salamanders in small lotic systems: A comparison of eDNA and leaf litter bags. 2021 Meeting of the Tennessee Herpetological Society, Dec. 6-7, 2021, Chattanooga, TN. Poster.

Strasko, Elizabeth K., **Rebecca R. Piche**, and Ben F. Brammell. 2021. Development and validation of qPCR assays for use in eDNA detection of *Ambystoma texanum* and *Ambystoma talpoideum*. 2021 Meeting of the Tennessee Herpetological Society, Dec. 6-7, 2021, Chattanooga, TN. Poster.

Brammell, Ben F., Cierla M. Sams, Elizabeth K. Strasko, **Rebecca R. Piche**, Cy L. Mott, Malinda A. Stull. 2021. Detecting fossorial salamanders using eDNA; development and validation of quantitative and end-point PCR assays for the detection of five species of *Ambystomid* salamanders. 2021 Meeting of the Tennessee Herpetological Society, Dec. 6-7, 2021, Chattanooga, TN. Poster.

**Piche**, **Rebecca R.**,Eliza M. Crawford, and Ben F. Brammell. 2021. A comparison of detection methods for semiaquatic salamanders: eDNA and leaf litter bags. 106th Annual Kentucky Academy of Science Meeting, Nov. 5, 2021, Virtual presentation.

Strasko, Elizabeth K., **Rebecca R. Piche**, and Ben F. Brammell. 2021. Development and validation of qPCR assays for use in eDNA detection of *Ambystoma texanum*, *Ambystoma talpoideum*, and *Notophthalmus viridescens*. Annual Kentucky Academy of Science Meeting, Nov. 5, 2021, Virtual presentation.

**Piche**, **Rebecca R.** and Ben F. Brammell. 2021. Comparison of leaf litter bag and environmental DNA in detection of salamanders in Maywoods Environmental and Educational Laboratory. Kentucky Water Resources Annual Symposium, September 13, 2021. Lexington, KY. Poster.

Sams, Cierla M. Elizabeth K. Strasko, **Rebecca R. Piche**, Cy L. Mott, Malinda A. Stull, Ben F. Brammell. 2021. Development and validation of qPCR assays for use in eDNA detection of *Ambystoma* species. Kentucky Water Resources Annual Symposium, September 13, 2021. Lexington, KY. Poster.

**Piche**, **Rebecca R.** and Ben F. Brammell. 2021. Effects of predation hazard on habitat selection of fathead minnows (*Pimephales promelas*). National Council on Undergraduate Research, April 2021. Virtual Presentation.

Faith H. Day, **Piche**, **Rebecca R.**, Ben F. Brammell. 2020. Effects of predation hazard on habitat selection of fathead minnows (*Pimephales promelas*). Kentucky Academy of Science, Nov. 6, 2020. Virtual Presentation.

**Published GenBank Sequences**

* **Piche**, **Rebecca R.**,Elizabeth K. Strasko, Cy L. Mott, and Ben F. Brammell. 2021. *Notophthalmus viridescens* cytochrome b (cytb), partial cds, 272 BP, Accession# MZ962319
* Strasko, Elizabeth, K., **Rebecca R. Piche**, Mary E. Johnson, and Ben F. Brammell. 2021. *Ambystoma tigrinum* cytochrome b (cytb), partial cds, 770 BP, Accession# MZ962317
* Strasko, Elizabeth, K., **Rebecca R. Piche**, Cy L. Mott, and Ben F. Brammell. 2021. *Ambystoma jeffersonianum* cytochrome b (cytb), partial cds, 749 BP, Accession# MZ962318
* Sams, Cierla M., Robert Washburn, **Rebecca R. Piche**, Elizabeth K. Strasko, and Ben F. Brammell. *Ambystoma barbouri,* cytochrome b, partial cds, 337 BP, Accession #OK040169
* Brammell, Ben F., Elizabeth K. Strasko, and **Rebecca R. Piche**. 2021. *Ambystoma barbouri* cytochrome b, partial cds, 935 BP, Accession # OL456142
* Strasko, Elizabeth K., **Rebecca R. Piche**, Jarrett R. Johnson, and Ben F. Brammell. 2021. *Ambystoma tigrinum* cytochrome b (cytb), partial cds, 769 BP, Accession# OL456143

**Awards**

* **Most Outstanding Undergraduate Poster Presentation** - Kentucky Water Resources Annual Symposium, September 13, 2021. Lexington, KY.
* **2nd Place 2021 Student Presentation Competition**- Kentucky Academy of Science, November 6, 2021. Award presented to an undergrad with an outstanding research presentation.
* **Hamann Memorial Science Scholarship** – Asbury University, April 21, 2021. Scholarship presented to a STEM student showing academic excellence and commitment to serving.
* **Sigma Zeta National Science & Math Honors Society Member** - 2020.
* **Asbury Presidential Scholarship** – 2018. 30% tuition scholarship awarded to students who obtained ACT scores of 30 or above.
* **Dean’s List** – 2018-present. Students who have passed a minimum of 12 graded semester hours with a grade point average of 3.50 or higher.

**Professional Experience**

**Full time Research Technician**  Summer 2022

Asbury University

*Wilmore, KY*

* Assisted with multiple studies through DNA extraction, gel electrophoresis, end point PCR, real point PCR, and utilization of eDNA.
* Developed a proposal to compare conventional and eDNA methods in the detection of multiple salamander species, securing $459 in grant funding.
* Trained assistants on laboratory protocol and experimental methods.

**Full time pasture Evaluation Intern**  Summer 2022

University of Kentucky, Department of Plant and Soil Sciences

*Lexington, KY*

* Gathered and presented data
* Learned to identify different species of grasses and plants
* Operated government vehicles and equipment

**Veterinarian Assistant** October 2022- May 2023

Town & Country Animal Clinic/ The Animal Clinic

*Danville/ Lawrenceburg KY*

* Assisted in animal handling and operated in dangerous and risky environments
* Drew blood, administered drugs, aided in surgery, and worked cattle
* Adapted to a flexible and spontaneous schedule

**Major Related Classes**

Senior Research (BIO400), Aquatic and Wetland Biology (BIO227& 229), Ecology (BIO221), Microbiology (BIO211&213), General Biology I & II (BIO201& 202), Biology I&II Lab (BIO203& 204), Physiology (BIO352&354), Intro Bio Research (BIO399), General Chemistry I&II (CHE121&122), General Chemistry I&II Lab (CHE123&124), Organic Chemistry I&II (CHE201&202)