

# Emily Taylor Guise

eguise@ucdavis.edu

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## EDUCATION:

**North Carolina State University**, 2010-2012 Raleigh, NC  
**Radford University**, 2012-2015 Radford, VA  
Bachelor of Science in Biology, Chemistry Minor; *cum laude*  
**University of California, Davis**, 2016-present Davis, CA  
Molecular, Cellular, and Integrative Physiology Graduate Group

## MAJOR INDEPENDENT RESEARCH TOPIC:

Radford University, Ecophysiology Lab with Dr. Sara O'Brien Fall 2013 – January 2016  
Guise, E. "Trouble with trenbolone? Examining the influence of common runoff pollutant on *Gambusia holbrooki* development and behavior"  
Radford University, Peruvian Rainforest with Dr. Jason Davis & Dr. Joy Caughron Maymester 2015  
Guise, E. "Exploring antimicrobial qualities as a possible mechanism of medicinal plants used for wound healing in the Peruvian rainforest"

## GRANTS AND AWARDS:

### Applied:

National Science Foundation – Exploring the common rock dove (*Columba livia*) as a Bioindicator for the Endocrine Disruptors Bisphenol-A and Trenbolone in Rural and Urban areas, Fall 2015 **Honorable Mention**  
National Science Foundation – Graduate Research Fellowship. Physical and behavioral effects of common endocrine disrupting chemicals in western national parks on fish in a synergistic manner, Fall 2014

### Awarded:

Scholar-Citizen Fellow, Radford University, Spring 2015. Provided by Scholar-Citizen Initiative.  
Cum laude, Radford University, Spring 2015.  
Ruth Bricker Painter Research Award, Radford University, Spring 2015. Provided by RU Biology Department. \$3000  
Conference Travel Awards, Radford University, Spring 2015. Provided by Office of Undergraduate Research and Scholarship & Scholar-Citizen Initiative. \$1,500  
Summer Undergraduate Research Fellowship, Radford University, Spring 2014. Provided by RU Office of Undergraduate Research. \$2500  
Highlander in Action Grant, Radford University, Spring 2014. Provided by Scholar Citizen Initiative Office. \$2000  
Biology Research Award, Radford University, Spring 2014. Provided by RU Biology Department. \$1000

### Nominated:

Radford University Outstanding Student, Radford University, Spring 2015  
Biology Department Dean's Scholar, Radford University, Spring 2015  
Behind the Scenes Leader - Recognizing Excellence in Diversity, Center for Diversity and Inclusion, Radford University, Spring 2015

September 2016

## PRESENTATIONS & PUBLICATIONS:

### Scholarly

- Guise, E., O'Brien, S. 2016. The Ecologically Relevant Effects of on *Gambusia Holbrooki*. The Society for Integrative & Comparative Biology Annual Meeting. Portland Oregon
- Guise, E., O'Brien, S. 2015. Trouble with Trenbolone? The Effects of a Common Runoff Pollutant. RU 24<sup>th</sup> Annual Student Engagement Forum. Radford University, Radford, VA.
- Guise, E. 2015. My ePortfolio: An Online Identity for Professional Gain. RU 24<sup>th</sup> Annual Student Engagement Forum. Radford University, Radford, VA.
- Guise, E. 2015. Metacognition, Me, & my ePorfolio. Scholar-Citizen ePortfolio Open House. Radford University, Radford, VA.
- O'Brien, S., **Guise, E.** 2015 Exploring the effects of endocrine disrupting pollutants on mosquito fish and the implications for predator/prey interactions. Virginia Mosquito Control Association Annual Meeting. Suffolk, VA.
- Guise, E., O'Brien, S. 2015. Trouble with Trenbolone? Examining the influence of a common run-off pollutant on *Gambusia Holbrooki* development and behavior. The Society for Integrative & Comparative Biology Annual Meeting. West Palm Beach, FL.
- Guise, E., O'Brien, S. 2014. Effects of Ecologically Relevant Exposure to Trenbolone. 2014 RU Summer Research Celebration. Radford University, Radford, VA.
- Guise, E. 2014. *Submitted for review. Microtus richardsoni*: natural history, distribution, and classification of the water vole. Animal Diversity Web.
- Guise, E. 2014. My Eportfolio. 2014. Scholar's Celebration by Scholar Citizen Initiative.
- Guise, E. 2014 Eportfolio: <http://emilyguise.weebly.com>

### Outreach

- Guise, E., Bonavita, C., Wirgau, J. 2015. Exploring Summer Opportunities for Undergraduate Research: Selecting and Funding a Summer Opportunity. RU Office of Undergraduate Research and Scholarship seminar series.
- Guise, E., Hamed, M., Mitchell, H., Roller, S. 2015. Women in STEM Professions-Opportunities, Challenges, Strategies for Success Student Panel. RU Women's History Month Event.
- Guise, E., Hamed, M., Metz, D. 2015. The Danger of Plastics! Scholarly Outreach and Research Education 2015 Film Festival
- Guise, E. 2015. My Research Experiences at RU. RU Scholar's Day: Open house for top admitted students.
- Dudley, E., Carrell, S., **Guise, E.** 2014. Roachzilla!! How hormones can make giant insects. Virginia Science Festival.
- Guise, E. 2014. Women in Science and Undergraduate Research. Invited Presenter/Panelist. RU Summer Bridge Program: encouraging high school woman to major in STEM fields.
- Guise, E. 2014. Engaging in Undergraduate Research. Invited Panelist. RU Accelerated Seminar.
- Guise, E., Self, K., O'Brien, S. 2014. Establishing a Toxin-free Home: decreasing your exposure to endocrine disrupting chemicals. Outreach presentation at the 2014 Christiansburg Minorities Health fair.
- Guise, E. 2014 The Truth About Your Food. Radford University Whim online magazine.

## RELEVANT COURSE WORK AND TECHNIQUES:

### Coursework

- Study Abroad: Radford Amazonian Research Expedition-Peru/Amazon Rainforest. Maymester 2015.
- Instrumental Chemistry. Radford University. Spring 2015.
- Endocrinology. Radford University. Fall 2014.
- Biochemistry. Radford University. Fall 2014.
- Pathophysiology. Radford University. Summer 2013.

- Human Anatomy and Physiology. Radford University. Spring 2013.
- Microbiology. Radford University. Spring 2013.
- Women in Science and Engineering. NC State University. 2010-2012. Completed 4 semester program, learned what it means to be a woman in science and the difficulties women face

#### **Lab/field Techniques Mastered:**

- ELISA/EIA test kits
- H&E staining – Histological Analysis
- Animal care including avian, reptilian, and aquatic animals
- General dissection
- Dilutions and reagent preparation
- Behavioral monitoring with Noldus Ethovision software
- Accurate pipetting technique
- Bacterial culture
- Titrations, distillations, etc.
- H<sup>1</sup>-NMR, IR, and mass spectrometry

#### **TEACHING EXPERIENCE:**

##### **Teaching Assistant:**

Human Anatomy and Physiology for Nurses, Fall 2014-Spring 2015 – Lead TA – Radford University

Retention Course for Students Interesting in Pursuing Research, Fall 2014-Spring 2015 – Radford University

Advanced Human Anatomy and Physiology for Majors, Fall 2013-Spring 2014 – Radford University

#### **EMPLOYMENT:**

- Radford University, Summer Bridge Program – Promoting Young Women in Science Summer 2016  
*Resident Assistant.* Lived with students and guided them during activities. Mentor.
- Radford University, Summer Bridge Program – Promoting Young Women in Science Summer 2015  
*Teaching Assistant.* Helped students with data collection and analysis. Mentor.
- Radford University, Learning Assistance Resource Center. Fall 2014 – Spring 2015  
*Tutor.* Tutor students in Anatomy and Physiology.
- Radford University, Anatomy and Physiology Lab. Spring 2013 – Spring 2015  
*Lab Assistant.* Assist with dissection, and general cadaver maintenance.
- Radford University, Admissions. Fall 2013 – Spring 2015  
*Student Admissions Representative.* Give campus tours, attend admissions events.
- Radford University, New Student Programs, Retention Program. Fall 2014  
*Peer Instructor.* Co-teach UNIV 100 to incoming freshman.
- Radford University, Waldron College Dean's Office. Summer 2013 - Fall 2013  
*Office Assistant.* Worked front desk, office work, assisted Dean and advisors.
- NC State, The National Society of Leadership and Success. Spring 2012  
*Intern.* Started chapter of NSLS on campus.

## **OUTREACH, SERVICE, & EXTRACURRICULAR ACTIVITIES:**

- IACUC Student Representative. Radford University. Fall 2014-Spring 2015. Serve as student representative on IACUC board, review all incoming protocols involving institutional animal research, ensure recommendations are met and compliance is achieved.
- Greenhouse Tour Guide Coordinator. Radford University. Fall 2014-Spring 2015. Recruit, train, and schedule student tour guides for Science Day at RU.
- Vivarium SPF Search Committee Student Representative. Radford University. Spring 2014. Participated in phone and on campus candidate interviews as student representative. Arranged student meeting with candidate.
- Wakemed Cary Hospital Volunteer. Cary, NC. Spring 2012. Restocked rooms, assisted nurses and patients, cleaned rooms. 2 hours weekly.
- Knitting Instructor Volunteer. Raleigh Rescue Mission, Raleigh, NC. Spring 2012. Taught knitting classes weekly to homeless women and children. Arranged collection of donated materials.