

# Rebecca A. Eckert

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## Education:

*Expected  
May 2019*

**Ph.D. University of Maryland, College Park, MD**

GPA: 4.0/4.0

Major: Entomology

Dissertation: Algal contribution to trophic dynamics in heterotrophic streams: Impact on invertebrate diversity and performance

*Aug 2012*

**M.S. The Pennsylvania State University, University Park, PA**

GPA: 4.0/4.0

Major: Wildlife and Fisheries Science

Thesis: An experimental approach to evaluate effects of nutrients and median consumers on stream trophic dynamics

*May 2009*

**B.S. Kutztown University of Pennsylvania, Kutztown, PA**

Summa cum laude, GPA: 4.0/4.0

Major: Biology—Organismal Biology/Ecology

Minor: Chemistry

## Relevant Experience:

*Aug 2014-  
Present*

**Research and Teaching Assistant, University of Maryland College Park, College Park, MD**

Aided in the execution of multiple experiments as part of risk assessment of GMO corn for aquatic invertebrates, including analysis of algal community on corn tissue, feeding trials of corn tissue to *Pycnopsyche* (Trichoptera: Limnephilidae), oral and dermal insecticide exposure tests with *Pycnopsyche*, and collection/sorting of stream benthic invertebrate communities from leaf packs, D-net, and sediment core samples in BACI stream experiment; Helped oversee undergraduate feeding trial project exposing *Hyallela azteca* (Amphipoda: Dogielinotidae) to corn tissue conditioned under light and dark conditions; Teaching assistant for Principles of Biology III: Organismal Biology, Genetics, and Sustainability

*Aug 2013-  
July 2014*

**Adjunct Biology Instructor, Lehigh Carbon Community College, Schnecksville, PA**

Taught introductory biology lectures and labs to science and non-science majors including preparing lectures, assignments, and exams; classes included microbiology, cellular biology, genetics, and ecology topics

*Aug 2009-  
May 2012*

**Research and Teaching Assistant, The Pennsylvania State University, University Park, PA**

Responsible for sample analysis from various projects, including chlorophyll-a, phosphorus, and nitrogen samples; Aided in implementation and collection of various stream experiments; Responsible for hiring and oversight of undergraduate students working in the laboratory; Helped design and teach a Limnological Methods lab course; Research assistant onboard CCGS Griffon 2/14/11-2/18/11 performing light-dark bottle experiments, antibiotic experiments, and preparing/counting fluorescent pico- and nanoplankton slides as part of the Microbial Ecology of the Lake Erie Ecosystem (MELEE) project

*March 2007-  
May 2009*

**Laboratory Assistant, Kutztown University Biology Department, Kutztown, PA**

Responsible for set-up of supplies and equipment, including equipment calibrations, for weekly labs in Marine Biology, Marine Ecology, Animal Physiology, and Physiological Ecology of Animals; Responsible for keeping the lab orderly

*May 2008-  
July 2008*

**Research Experience for Undergraduates in Aquatic Entomology, Stroud Water Research Center, Avondale, PA**

Sorted and identified macroinvertebrates to family level for water quality assessment using MAIS scores; Measured wing lengths (related to biomass) of two Costa Rican adult mayfly species and analyzed data

**Publications and Technical Reports:**

- **Eckert, RA** & HJ Carrick. 2014. Evidence for consumer regulation of biofilm-nutrient interactions among hardwater streams (Pennsylvania, USA). *Hydrobiologia* 722: 183-198.
- Carrick, HJ, KL Dananay, **RA Eckert**, & KJ Price. 2012. Decomposition during autumn foliage leaf-fall in wetland situated along a biogeochemical gradient in Pennsylvania, USA. *Journal of Freshwater Ecology* 27: 1-17. (Editor's Choice Article)
- Carrick, HJ, **RA Eckert**, MK May, & KJ Price. 2011. Changes in Biofilm Stoichiometry and Diatom Taxonomic Composition in Response to Ecosystem-Level, Experimental Enrichment with P. Final Report, Pennsylvania Department of Environmental Protection, Harrisburg, PA, 23 p.

**Presentations:**

- **Eckert, RA** & WO Lamp. 2016. Macroinvertebrate diversity associated with periphytic algae on leaf debris. *Oral Presentation*. Society for Freshwater Science Annual Meeting. Sacramento, CA.
- Price, KJ, AM Scanlan, **RA Eckert**, D Hurley, & D Orr. 2015. Comparison of *Simulium jenningsi* (Diptera: Simuliidae) larval gut contents across instars. *Poster Presentation*. 10<sup>th</sup> Annual Susquehanna River Symposium. Lewisburg, PA.
- Lamp, WO, **R Eckert**, A Leslie, & G Dively. 2015. Lack of evidence for non-target effects of Bt corn on stream insects. *Oral Presentation*. Entomological Society of American Eastern Branch Annual Meeting. Rehoboth Beach, DE.
- **Eckert, RA**. 2013. KU and Beyond: A Tale of Bugs and Slime. Invited speaker for Kutztown University's NSF STEM Lecture Series.
- Invited alumni speaker for Kutztown University Math, Science, and Technology Open House, October 2012
- **Eckert, RA** & HJ Carrick. 2011. Influence of nutrients and consumers on lower trophic levels in three temperate limestone streams. *Oral Presentation*. The 14<sup>th</sup> Annual Environmental Chemistry Student Symposium. University Park, PA.
- **Eckert, RA** & HJ Carrick. 2011. Influence of nutrients and consumers on lower trophic levels in three temperate streams. *Oral Presentation*. Presented to wildlife students at Pennsylvania State University DuBois Campus regarding research and graduate school process.
- **Eckert, RA**, KJ Price, and HJ Carrick. 2010. Influence of nutrients, fish, and abiotic factors on stream algal biomass. *Poster Presentation*. Regional Science Consortium 6<sup>th</sup> Annual Research Symposium. Erie, PA.

**Service:**

University of Maryland Entomology Student Organization Treasurer 2015-2016  
 UMD Department of Entomology Bug Camp volunteer co-led aquatic insect activities, July 2015 & 2016  
 Maryland Day "Discover a Swamp" volunteer, April 2015  
 Reviewer for Northeastern Naturalist  
 School of Forest Resources Graduate Student Organization Seminar Coordinator 2010-2012

**Awards:**

University Flag Fellowship Recipient, University of Maryland  
 Gahan Fellowship Recipient, University of Maryland 2014-2017  
 UMD Teaching Achievement award, 2015-2016  
 Featured alumni Kutztown College of Liberal Arts and Sciences newsletter *The Collage* Fall 2012  
 Second Place (session) Oral Presentation, Environmental Chemistry Student Symposium 2011  
 Nominee for SFR Outstanding Graduate Student Teaching Assistant Award 2011  
 Dean's Scholar for the College of Liberal Arts and Sciences Scholarship 2007-8 and 2008-9  
 Dean's List Fall 2005-Spring 2009 (Kutztown University)

**Memberships:**

American Association for the Advancement of Science 2015 to present (sponsored membership)  
 Society for Freshwater Science 2011 to present  
 Advancing the Science of Limnology and Oceanography 2011 to 2015  
 Pennsylvania Lake Management Society 2010 to 2013  
 Phi Kappa Phi member, inducted November 2007