**Emily Ball**

**exb62@psu.edu**

**EDUCATION**

**M.S. in Soil Science, minor in Biogeochemistry** GPA: 3.95/4.0Expected Graduation: December 2018 The Pennsylvania State University, University Park, PA

**B.S. in Environmental Science (*Magna Cum Laude*)** GPA: 3.7/4.0May 2016

Delaware Valley University, Doylestown, PA

**EXPERIENCE**

**Penn State, College of Agriculture– Graduate Research Assistant** August 2016-Present

**Mary Ann Bruns Soil Microbiology Lab, mvb10@psu.edu**

* Develop research project evaluating differences in N2O flux throughout the growing season from soils receiving different cover crop residues
* Plan accompanying laboratory incubation and measure soil properties using field and lab techniques

**Penn State, College of Agriculture – Graduate Teaching Assistant** January 2016 - May 2018

**Soils 102- Introduction to Soils Laboratory**

* Independently led a lab section of 25-30 undergraduates
* Presented background information on introductory soil science concepts for each class section
* Taught common field and laboratory techniques to evaluate soil properties

**National Resources Conservation Service – Volunteer** January 2016 – May 2016

* Developed an outreach presentation on soil compaction in agricultural landscapes
* Assessed farms across multiple counties using Inventory and Evaluation reports (I&Es)

**OUTREACH AND VOLUNTEER WORK**

**Congressional Visits Day - Soil Science Society of America** March 2018

* Informed legislators on the challenges facing farmers and the importance of agricultural research

**ENVISION Event- Penn State** January 2018

* Mentored young girls (ages 14-15) interested in careers in STEM

**World Soil Day-Penn State** December 2017

* Taught undergraduate students about the importance of soil health testing in agriculture

**4-H Field Day- Penn State Extension** April 2017

* Explained the importance of soil and led a soil texturing activity for ages 7-10 and their guardians

**WISE (Women in Science and Engineering)** - Pennsylvania State University November 2016

* Served as a mentor for young women in their first year of college with academic concerns

**CONFERENCE PRESENTATIONS**

* **Emily Ball**, Mary Ann Bruns, Heather Karsten, Curtis Dell, 2017,Soil Redox Potential and Carbon Fractions in Manured and Cover-Cropped Soils under Reduced Tillage, *2017 ASA, CSSA and SSSA International Annual Meeting*
* Hiroyuki Kashima, Arnab Bhowmik, Mara Cloutier**,** **Emily Ball**, John Regan, Mary Ann Bruns, 2016, Metagenomic analyses of prokaryotic functional genes increase understanding of nitrogen cycling: the case of nrfA in soils and bio-wastes, *American Society for Microbiology (Alleghany Branch)*
* **Emily Ball**, Arnab Bhowmik, Mara Cloutier, Mary Ann Bruns, 2016, Soil Redox Potential in Manured and Cover-Cropped Soils under Reduced Tillage, *7th Annual* *Sustainable Cropping Systems Symposium*

**REFERENCES**

**Arnab Bhowmik, Ph.D., Post-Doctoral Researcher**

**Pennsylvania State University**

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*Dr. Bhowmik is a Post-Doctoral Researcher in the Bruns Soil Ecology Lab at Penn State.*

**Heather Karsten, Ph.D., Associate Professor in Plant Science**

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*Dr. Karsten is a member of my graduate committee and the lead director for the Sustainable Dairy Cropping Systems project.*

**Curtis Dell, Ph.D., Research Soil Scientist**

**USDA-ARS**

USDA-ARS-Pasture Systems Watershed Management Research Unit

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University Park, PA 16802

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*Dr. Dell is a member of my graduate committee and a researcher on the Sustainable Dairy Cropping Systems project.*