

# **Bloomsburg University of Pennsylvania**

## **Department of Environmental, Geographical, and Geological Sciences**

### **Annual Report 2017**



# Bloomsburg University of Pennsylvania

## Department of Environmental, Geographical, and Geological Sciences

### Annual Report 2017- Table of Contents

Chairperson Remarks.....3

#### Department Faculty

Patricia Beyer.....9

John E. Bodenman.....10

Jeff Brunskill.....11

Tina Delahunty.....12

Benjamin Franek.....13

Alan A. Gishlick.....16

Jennifer J. Haney.....17

John G. Hintz.....19

Sandra Kehoe-Forutan.....20

Brett R. McLaurin.....21

Laura Geller Mock.....23

Matthew C. Ricker.....24

Michael Shepard.....27

Cheryl L. Smith.....28

Adrian Van Rythovan.....30

Cynthia Venn.....31

Daryl Wenner.....34

Jennifer Whisner.....35

Stephen Whisner.....37

Danqing (Dana) Xiao..... 39

Support EGGS:

<https://giving.bloomu.edu/eggs>

## A Note from the Chair

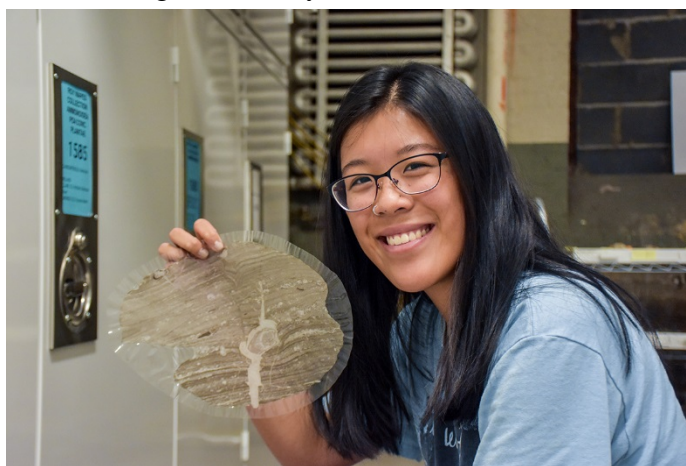
### New Faculty

This fall, we welcomed our newest tenure-track faculty member, **Dr. Jennifer Haney**. Dr. Haney is an alumna of our department and graduated with her degree in Geography and Environmental Planning in 2003. She received her Master's degree at Binghamton University and her Ph.D. at the University of South Carolina. Her expertise falls in two areas: environmental hazards and vulnerabilities, and terrorism. She teaches our course in *Environmental Risks and Hazards* and developed a very popular new course called the *Geography of Terrorism*. Dr. Haney is working to become a *Certified Emergency Manager* and is developing a pathway for our students interested in that growing field. In late October, Jenn and her husband Paul welcomed their first child, Matthew Everett!

### Students

Our major numbers hover in the 200+ range on any given day, and 54 of them graduated in the past spring, summer, or winter term. Five of our Professional Geology majors took the PA State Professional Geology Licensing Exam (ASBOG), and four passed on the first attempt! This exam, like the Bar Exam for lawyers, is a necessary stepping stone to become licensed geologists in Pennsylvania and an 80% pass rate is exceptional.

Nearly 30 of our students had internships or research projects during the past summer. Of particular note, student **Keara Drummer** landed a prestigious internship at the **American Museum of Natural History** (AMNH) in New York City. There, she worked with curators on the *Royal Mapes Collection* of over 500,000 fossils. Later in the fall, she presented her work at the national meeting of the Geological Society of America in Seattle, WA.



Keara Drummer at the AMNH (©AMNH/N.Berlet)

All of our students present their results: venues last year included the BU Research Day, the Northeast Geological Society of America meeting in Burlington, VT, the Susquehanna River Symposium, the National Geological Society of America meeting in Seattle, WA, and the American Association of Geographers meeting in Boston.



## New Learning Community

**Dr. Benjamin Franek** (EGGS) and **Dr. Lauri Green** (Biology) are co-leading a new venture for us: an *Environmental Science Learning Community*. This is a group of ~20 incoming freshmen who have expressed an interest in our fields. They will take classes together and the two faculty mentors will organize activities, including field trips, around the theme of environmental science. Our first cohort will begin this fall and we will keep you updated on this exciting opportunity!

## Field and Laboratory Experiences

One of our department goals *is to get students into the field or lab* as often as possible. What better way to learn about the Earth! This starts in our earliest classes, like Environmental Science (EGGS 100), where last year, we took nearly 500 students to visit the nearby **Ashland Coal Mine** and visit the site of the 55-year-old **Centralia, PA, Mine Fire**.

## Field Geology (EGGS 330)

Over a three-week period this past summer, students in our introductory *Field Geology* course (EGGS 330) were led by **Drs. Cindy Venn, Jen Whisner, and Brett McLaurin** to a variety of landscapes in southern California and Nevada, including Death Valley. A generous (and anonymous) donor continues to subsidize the airfare costs for our students. Summer '18 will take us to Federal and Tribal lands in the *Four Corners* region in southern Utah.



Students visited Death Valley as part of our *Field Geology* (EGGS 330 course).

### ***Regional Geography Abroad: Norway (EGGS 211)***

Also during the summer, **Drs. Ben Franek** and **Laura Mock** led the first offering of our new course called ***Regional Geography Abroad*** (EGGS 211). The model is similar to the ***Field Geology*** course: two faculty lead a group of students to a particular region of the world to study both its physical and cultural geography. This group went to Norway for nearly three weeks. Highlights of the trip included hiking on a glacier and a visit to the Arctic Circle – land of the Midnight Sun!

The connection with Norway continued into the fall when 50+ students participated in a town hall-style meeting with the Norwegian Ambassador to the United States, Kåre R. Aas, via Skype. One of the major items of discussion was the uses of and political issues surrounding the increasingly ice-free Arctic Ocean.



Students hiked a glacier in Norway as part of *Regional Geography Abroad* (EGGS 211).



### ***Special Topics: Coastal Oceanography (EGGS 390)***

We continue to use our ***Special Topics*** course (EGGS 390) as a way to offer interesting alternative courses to our majors. In the spring, **Dr. Cindy Venn** offered a course on ***Coastal Oceanography***. Since 40% of the U.S. population lives along the coastline, a course such as this will be of great value to students looking forward to careers in our field. Like most of our upper-level courses, this one included many outings, including one to the Chincoteague Bay Field Station on the Eastern Shore of Virginia, and a week-long excursion to the **Everglades** in Florida over Spring Break.



Students in *Special Topics: Coastal Oceanography* visited the Everglades in FL.

### ***Special Topics: Museum Science (EGGS 390)***

One of our adjunct professors, **Dr. Alan Gishlick**, is a paleontologist with extensive experience working in museums. This year, he offered to teach a class on museum science – the science of preserving, restoring, cataloging, and archiving geological and biological samples. The course almost immediately filled with our own majors, as well as students from biology and anthropology. Fortunately, we recently renovated one of our laboratory spaces so 28 students could get extensive hands-on experience. Based on the demand and feedback, it is likely we will offer it again.



Students in *Special Topics: Museum Science* worked in our newly renovated laboratory space.



## ***Soil Judging Team Success!***

After winning the Northeastern Regional Soil Judging Competition last fall, our 2016 Soil Judging team, led by **Dr. Matthew Ricker**, went to the National Soil Judging Contest in April at Northern Illinois University and placed **5<sup>th</sup> in the nation**, an outstanding achievement!

The 2017 team competed at the Regional Championship in Rhode Island in October, and placed 5<sup>th</sup> overall out of 10 teams. Students **Shannon Bradley** (7<sup>th</sup>) and **Daniel Steinhauser** (8<sup>th</sup>) placed in the top 10 individual competition. Bloomsburg is the only non-agricultural school to place any students in the top 10 in our region for more than a decade.



2017 Soil Judging Team at the *Regional Soil Judging Competition* in Rhode Island.

There is much more coming in 2018, some of which will be very exciting (but I can't tell you yet!). All of the faculty continue to work to expand and adapt our curriculum – we want our students to come away with the best possible education, training, and experiences in our field.

Please drop by if you're in the area and say hello, or keep up with us on our homepage ([www.bloomu.edu/eggs](http://www.bloomu.edu/eggs)), Facebook ([www.facebook.com/BUEGGSalumni](https://www.facebook.com/BUEGGSalumni)), or our new Foundation page ([itspersonal.bloomu.edu/eggs](https://itspersonal.bloomu.edu/eggs)).





## **Patricia J. Beyer**

Associate Professor of EGGS

### **Scholarly Interests**

Fluvial Geomorphology, Surface Hydrology, Student Success and Retention

### **Education**

Arizona State University, Tempe, AZ, Ph.D., Geography 1997

University of Illinois, Urbana-Champaign, IL, M.S. Geography 1992

Valparaiso University, Valparaiso, IN, B.A. Geography/English 1990

### **2017 Presentations**

None

### **2017 Teaching**

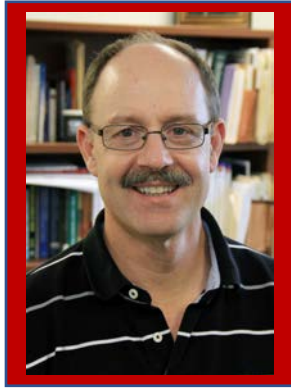
Spring 2017: Reassigned to the Provost's Office, working under VP Tom Fletcher in Strategic Enrollment Management.

Fall 2017: EGGS 107 Natural Disasters, 2 sections (35 students each)  
EGGS 101 Introduction to Physical Geography, 2 sections (35 students each)  
Student Success Collaborative Advising Fellow 25% overload – advising 120+ undeclared students  
Completed PASSHE Teaching Online Certification Course

### **2017 Service Activities**

Spring 2017: Team Leader, SSC Advising Fellows pilot program  
Steering Committee and Subcommittee co-chair, Strategic Enrollment Planning  
Subcommittee co-chair, Middle States Review committee  
SPARC member (President's Strategic Planning committee)  
Program proposal reviewer for PASSHE

Fall 2017: Subcommittee co-chair, Middle States Review committee  
EGGS Department Committees: Observation & Evaluation



**Dr. John E. Bodenman**

**Professor**

**Summer 2017 EGGS 498: Geography and Planning Seminar**



### **Scholarly Interests**

Research interests include spatial dynamics of the financial services sector, and regional economic development programs and policies. Particularly rewarding of late has been my work with student majors working on a wide variety of projects in the Geography and Planning Seminar (EGGS 498) that students take in conjunction with their summer internships (please see picture above).

### **Education**

Ph. D. (1995) Geography. The Pennsylvania State University at University Park.

M.S. (1991) Resource Economics. The Pennsylvania State University at University Park.

B.A. (1985) Economics. Willamette University in Salem, Oregon.

### **2017 Presentations and Publications**

**Bodenman, John E.**, and Darion Nomie. *The Spatial Dynamics of the Institutional Investment Advisory Industry in the United States: The Case of Boston, 1983-2013*. American Association of Geographers Annual Meeting, Boston, MA. April 7, 2017.

**Bodenman, John E.**, and Jenn Haney. *Piece by Peace: Helping Haitians Reduce Waste and Create Opportunities*. Middle States Division American Assoc of Geographers Annual Meeting, Geneseo, NY. Oct 21, 2017.

Nomie, Darion, and **John E. Bodenman**. 2016. *An Economic Opportunity Analysis of Downtown Bloomsburg*. Middle States Geographer 49: 21-31.

### **2017 Teaching**

Spring: Environmental Issues and Choices (EGGS 105)

Recreation, Tourism, and Sport (EGGS 315)

Fall: Environmental Issues and Choices (EGGS 105)

Honors Environmental Issues and Choices (HONORS 105)

Economic Geography (EGGS 221)

EGGS University Seminar (INTSTUDY 100)

### **2017 Service Activities**

Executive Board Vice President, BU Protestant Campus Ministries

Advisor, Gamma Theta Upsilon (GTU) Geography Honor Society

BU Honors Program Advisory Committee (HAC)





**Jeff Brunskill, Ph.D.**  
**Associate Professor**

### **Scholarly Interests**

My research interests focus on the public dissemination of meteorological information, spatial cognition, applications of geographic information system (GIS) technologies and geographic education. Over the last year, I collaborated with students and faculty in the computer science department at Bloomsburg University to develop the Bloomsburg Weather Viewer (<http://organizations.bloomu.edu/weather/viewer/index.htm>). The weather viewer is an educational program designed to enhance the educational value of the weather data and webcam imagery collected by K-12 schools and colleges for earth science courses. I am also working with BU faculty and undergraduate research assistants on several GIS projects including a viewshed analysis of natural gas towers in Lycoming county, a street tree inventory in Danville, PA, and the development of a orienteering course on upper campus. In addition, I am collaborating with Dr. Franek, two former EGGS graduates, and a current undergraduate GIS student to study the impacts of slope on the construction of pipelines at stream crossings, and to develop an enhanced GIS stream dataset that will facilitate decision making when routing natural gas pipelines across streams in Pennsylvania.

### **Education**

- University at Buffalo, Buffalo NY, Ph.D., Geography, 2005
- University at Buffalo, Buffalo NY, M.A., Geography, 2001
- North Carolina State University, Raleigh NC, B.S., Meteorology, 1999

### **Recent Publications**

- Greene, N.R. and Brunskill, J.C. Design of a solar tracking interactive kiosk. *Physics Education*. December 2016, Volume 52 (1), pp. 1-7.
- Sinha, G., Kronenfeld, B. J., & Brunskill, J. C. (2015). Toward the democratization of geographic information: GIS, remote sensing, and GNSS applications in everyday life. In Prasad S. Thenkabail (Ed.), *Remotely Sensed Data: Characterization, Classification, and Accuracies*. London: CRC Press.

### **Teaching**

- EGGS 160 – Geography and Information Systems
- EGGS 242 – Map Use and Analysis
- EGGS 255 – Meteorology
- EGGS 360 – Principles of GIS I
- EGGS 361 – Principles of GIS II
- Advisees: 12 majors; 24 minors

### **Recent Service Activities / Committees**

- Developed a new GIS and Spatial Analysis minor, and Re-Developed EGGS 160 (Geography and Information Systems) as a General Education course for the EGGS Department
- **Committees:** EGGS Search Committee; EGGS Promotion Committee; EGGS Sabbatical Committee; EGGS Geography Curriculum Committee; Gamma Theta Upsilon (GTU) Geography Honors Society Advisor; University-wide Tenure Committee; University-wide Sabbatical Committee



## **Dr. Tina Delahunty**

### **Assistant Professor**

#### **Scholarly Interests**

Biogeography, Land Use Land Cover Change, Recreation Planning, GIS, Remote Sensing

#### **Education**

Ph.D. University of Florida, Geography

#### **Publications 2015-2017**

2017. Pitt, A.L., Shinskie, J.L., Tavano, S.M., **Delahunty, T.**, and Spear, S.F. "Decline of giant salamander assessed with historical records, environmental DNA, and multi-scale habitat data." *Freshwater Biology*. 62(6): 967-976.

2016. Liu, Ying, **Delahunty, Tina**, Zhao, Naixhou, and Cao, Guofeng. "These lit areas are undeveloped: Delimiting China's urban extents from thresholded nighttime light imagery." *International Journal of Applied Earth Observation and Geoinformation*. 50 (2016): 39-50.

2015. Muharam, Farrah Melissa, Maas, Stephen J., Bronson, Kevin F., and **Delahunty, Tina**. "Estimating cotton nitrogen status using leaf greenness and ground cover information." *Remote Sensing*. 7: 7007-7028.

#### **Presentations 2015-2017**

2017. International Congress for Conservation Biology. Paper presentation: "Using Old and New Data to Rapidly Identify Extent and Drivers of Aquatic Species Population Decline." Cartagena, Colombia.

2016. Southeast Division of the Association of American Geographers (SEDAAG) Conference. Paper presentation: "Utility of a Land Use Land Cover Dataset for Habitat Location."

2016. The Bog Learning Network, Winter Meeting. Paper presentation: "Use and Misuse of the National Land Cover Data Set for Wetland Monitoring."

2015. Appalachian Studies Conference. Paper presentation: "The Science, Technology (and Art) of Placing a New Trail."

#### **Research Proposals 2015-2017**

Submitted 2016: National Science Foundation. Sedimentary Geology and Paleobiology Program 16536. PI: "Holocene vegetation variability of southern Central Appalachia" \$236,268

#### **Teaching 2017**

Spring: Map Use and Analysis (EGGS 360242-01)

Map Use and Analysis (EGGS 360242-02)

Map Use and Analysis (EGGS 360242-03)

Fall: Principles of Geographic Information Systems (EGGS 360-01)

Principles of Geographic Information Systems (EGGS 360-02)

Remote Sensing of the Earth (EGGS 320-01)

Introduction to Physical Geography (EGGS 101-03)





## Dr. Benjamin Franek

### Assistant Professor

#### Scholarly Interests

I have several scholarly interests. One regards watershed management – I have refined and developed practices that watershed organization members can use to assess the integrity of stream systems via efficient visual techniques. This work has led to identification of degraded local stream reaches and, ultimately, to work toward their naturalization and restoration. Another interest concerns eliciting study behaviors of students, which lead to success in the classroom. This work has led to development of techniques that instructors can use to help students recognize potential troubles before they happen. One more interest I have involves research at the eco-hydrological interface. I am currently working on a project aimed at establishing reptile usage of transformed/aged infrastructure near fluvial systems. With all of my scholarly interests, students have and will continue to be integral to success.

#### Education

University of Connecticut, Storrs, CT, Ph.D., Geography, 2013.

Dissertation Research: “On Stream Assessment: Human Perception and Spatiotemporal Delineation of Geomorphic Units.”

California University of Pennsylvania, California, PA, M.A., Geography and Regional Planning, 2004.

Thesis: “The incorporation of renewable energy resources at the local and regional levels: A case study of Washington County, Pennsylvania municipalities.”

Pennsylvania State University, University Park, PA, B.S., Physical & Environmental Geography, 2001.

Pennsylvania State University, Dubois, PA, A.S., Wildlife Technology, 1998.

#### Academic Production (\*Bloomsburg University undergraduate co-author/contributor)

##### *Peer-Reviewed Journal Article*

**Franek, B. L., & \*Ruziecki, M. R. (2017).** *Glyptemys insculpta (Wood Turtle). Rail trail nesting challenges.* Herpetological Review [Accepted].

##### *Book Review*

Abbott, P. L. (In Press). *Natural Disasters*, (11<sup>th</sup> ed.). New York, NY: McGraw-Hill.

##### *Research/Conference Presentations*

\*Ruziecki, M. R., & **Franek, B. L.** (2017). *From industrial relic to wildlife corridor: establishing wood turtle nesting along Pine Creek Rail Trail.* Program with abstracts, 12<sup>th</sup> Annual Susquehanna River Symposium. Lewisburg.

- Franek, B. L.**, & Wenner, D. (2017). *A tale of two sites: The good, the bad, & the educational*. Poster Presentation. American Association of Geographers annual meeting. Boston.
- \*Ruziecki, M. R., & **Franek, B. L.** (2017). *Developing a technique to efficiently establish Wood Turtle (*Glyptemys insculpta*) usage of the Pine Creek Rail Trail*. 7<sup>th</sup> Annual Susquehanna Valley Undergraduate Research Symposium. Bloomsburg.
- \*Ruziecki, M. R., & **Franek, B. L.** (2017). *Investigating the hydrological setting function of Wood Turtles (*Glyptemys insculpta*) on the Pine Creek Rails-to-Trails*. Bloomsburg University College of Science and Technology Undergraduate Research Day. Bloomsburg.
- \*Fackler, E. L., & **Franek, B. L.** (2017). *Investigating the biological function of Wood Turtles (*Glyptemys insculpta*) on the Pine Creek Rails-to-Trails*. Bloomsburg University College of Science and Technology Undergraduate Research Day. Bloomsburg.
- Franek, B. L.** (2017). *Faculty volunteering: affording experiential learning opportunity venues*. Teaching and Learning Enhancement (TALE) Center Seminar. Bloomsburg University. Bloomsburg.
- Whisner, J., **Franek, B. L.**, & Beyer, P. (2016). *Structured encounters with real data: sneaking up on doing science*, Geological Society of America Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-284741, invited presentation at the Annual Meeting of the Geological Society of America, Sept. 25-28. Denver.
- Haney, J. J. & **Franek B. L.** (2016). *Ways to incorporate reflective learning into your courses*. Teaching and Learning Enhancement (TALE) Center Seminar. Bloomsburg.
- \*Ciecierski, D., \*Shapiro, N, Whisner, J., & **Franek, B. L.** (2016). *In search of data - Fishing Creek HydroWatch summer 2016*, Program with Abstracts, 11th Annual Susquehanna River Symposium. Lewisburg.
- \*Ciecierski, D., Whisner, J., & **Franek, B. L.** (2016). *Fishing Creek Hydro Watch – A better flood prediction system*, Bloomsburg University College of Science and Technology Undergraduate Research Day. Bloomsburg.
- \*Ciecierski, D. T., & **Franek, B. L.** (2016). *Tracking down the legacy of Brewington Dam*. Bloomsburg University, College of Science and Technology – Research and Scholarship Day. Bloomsburg.
- Franek, B. L.**, & \*Stephens, A. (2016). *Investigating hydrologic regime change: Modeling stream hydrodynamics on West Branch Run*. Hemlock Acres Property Owners Association. Iola.
- \*Stephens, A., & **Franek, B. L.** (2016). *Investigating hydrologic regime change: Modeling stream hydrodynamics on West Branch Run*. Bloomsburg University, College of Science and Technology – Research and Scholarship Day. Bloomsburg.
- \*Yurchak, J., **Franek, B. L.**, & Whisner, J. (2015). *Where did the water go? Analyzing the accuracy of discharge measurements at the Fishing Creek Hydrowatch Kocher Park site, Columbia County, Pennsylvania*. Bloomsburg University, College of Science and Technology – Research and Scholarship Day. Bloomsburg.

#### *Grants/Funding*

- \*Ruziecki, M. R., & **Franek, B. L.** (2017). *Investigating the eco-hydromorphic setting function of the Wood Turtle (*Glyptemys insculpta*)*. Bloomsburg University Undergraduate Research Scholarship and Creative Activities (URSCA) Award: \$1,500.
- Franek, B. L.**, & Mock, L. (2017). *Course logistics, EGGS 211: Regional Geography Abroad*. College of Science and Technology, Dean's Office Faculty Support: \$1,000.
- Briar Creek Association for Watershed Solutions. (2016-2017). *Weiss/Reeder property agricultural impairment mitigation and stream naturalization project*. Northeentral Pennsylvania Conservancy and Pennsylvania Department of Environmental Protection: \$5,246.
- Whisner, J., & **Franek, B. L.** (2016-2017). *Collecting and analyzing GIS and stream discharge data in support of developing a flood-forecasting model for the Fishing Creek watershed*. Degenstein Foundation through the Susquehanna Heartland Coalition for Environmental Studies: \$4,254.



**Franek, B. L., & Mock, L. (2016).** *Development of a new course, EGGS 211: Regional Geography Abroad.* Department of Environmental, Geographical, and Geological Sciences: \$500.

**Franek, B. L., & Mock, L. (2016).** *Development of a new course, EGGS 211: Regional Geography Abroad.* College of Science and Technology, Dean's Office Faculty Support: \$1,000.

### **Teaching**

Spring: Surface Hydrology (EGGS 370)  
Water Resources Management (EGGS 301)  
Natural Disasters (EGGS 107)

Fall: Environmental Conservation (EGGS 358)  
Water Resources Management (EGGS 301)  
Natural Disasters (EGGS 107)

### **Service Activities**

2016-2017 Bloomsburg University, College of Science and Technology: Faculty Recognition Awards Committee (**Chair**)

2017 Climate and Weather: to Bloomsburg, PA Girl Scout Troop 30202 (**Presenter**).

Briar Creek Association for Watershed Solutions (**President**)

2015-Present An exploration of EGGS materials for student interpreters, for Suzi Glowaski, Students with Disabilities Center. (**Invited presenter**).

Columbia County Water Education Day (**Set-up team**).

Bloomsburg University: Science Iditarod for regional high schools (**Quiz Master**), Bloomsburg University.

2011-Present: Regional watershed groups annual meeting (**Organizer/presenter**).



## **Alan D. Gishlick**

### **Instructor**

Curatorial Affiliate, Yale Peabody Museum of Natural History

### **Scholarly Interests**

My interests surround the evolution of biological form, function and behavior as elucidated by the fossil record of life. This has involved research on both vertebrate and invertebrate organisms in both the paleontological and neontological. I am also interested in the evolution of fossil ecosystems in the Triassic Chinle formation, southwestern United States.

### **Education**

2002 Ph.D., Geology and Geophysics (Paleontology), Yale University, New Haven, CT

1995 BA, Geology, Augustana College, Rock Island, IL

### **2017 Teaching**

Spring: Dinosaurs (EGGS 103)

Historical Geology (EGGS 130)

Introduction to Paleontology (EGGS 365)

Fall: Dinosaurs (EGGS 103)

Natural Disasters (EGGS 107)

Special Topics: Museum Science (EGGS 390)

### **2017 Service Activities**

Continued to organize and manage the department's geological and paleontological collections, directed a student worker on the curation and cataloging of the specimens in the collection. Oversaw the setup and movement of collections to a new dedicated collection space

Led the Yale Peabody Museum of Natural History annual field program in the Petrified Forest National Park. This is year we again included a Bloomsburg undergraduate in our field crew.

Directed a student research project using landmark morphometrics to test sexual dimorphism in trilobites.

Developed a new class teaching the methods of museum work.



**Dr. Jennifer J. Haney**  
**Assistant Professor**

### Scholarly Interests

Environmental Hazards and Vulnerability  
Societal Responses to Environmental Hazards  
Hazard perception  
Spatial Patterns of Terrorism  
Geographies and Drivers of Terrorism

### Education

Ph.D. (2010) Geography (Hazard Vulnerability). University of South Carolina, Columbia, SC.  
M.A. (2006) Geography (Hazard Vulnerability).  
Binghamton University, Binghamton, NY.  
B.A. (2003) Geography with Environmental Planning Option.  
Bloomsburg University, Bloomsburg, PA.

### Publications (2015-17)

**Webb, Jennifer J.** 2015. Chapter 6 In Graham A. Tobin and Burrell E. Montz (Eds.), *Evolving Approaches To Understanding Natural Hazards*. Cambridge Scholars Publishing.

**Haney, Jennifer J.** 2017. A Geographic Approach for Teaching about Terrorism. *Journal of Geography* 116 (6): 250-262.

### Presentations (2015-17)

Bodenman, John and **Jennifer J. Haney**. Piece by Peace: Helping Haitians Reduce Waste and Create Opportunities. Poster Presentation at *Middle States Division of the Association of American Geographers Conference* at SUNY Geneseo in Geneseo, NY. October 21, 2017.

Havice, Claire, **Jennifer J. Haney**, Joseph A. Ciruolo, and Jerry T. Mitchell. Previews, Popcorn, and Perils: Popular Culture and Influences on Disaster Behavior. Poster Presentation at *Middle States Division of the Association of American Geographers Conference* at SUNY Geneseo in Geneseo, NY. October 21, 2017.

**Haney, Jennifer J.**, Enid Lotstein, and Daryl Wenner. Making Our Courses a “Spatial” Experience: Best Practices in Teaching Geography. Panel Discussion at *Middle States Division of the Association of American Geographers Conference* at Blair County Convention Center in Altoona, Pa. November 5, 2016.



**Spring 2015 EGGS 305 Field Trip to PEMA**



**Haney, Jennifer J.** and Benjamin Franek. “Ways to Incorporate Reflective Learning Into Your Courses”. Presentation at Bloomsburg University’s *Teaching and Learning Enhancement (TALE) Center*. October 4, 2016.

**Haney, Jennifer J.** Examples of working with communities to incorporate hazards, risk, and environmental justice into academic programs. Panel Discussion at *InTeGrate Workshop: Coastal Hazards, Risk and Environmental Justice* at Tulane University in New Orleans, LA. May 21, 2015.

### **2017 Teaching**

Spring: Environmental Risks and Hazards (EGGS 305)

World Regional Geography (EGGS 104)

Summer: World Cultural Geography (EGGS 102)

Fall: Environmental Issues and Choices (EGGS 105)

### **2017 Service Activities**

Faculty advisor, Colleges Against Cancer – Bloomsburg University Chapter

APSCUF Membership Committee, Bloomsburg University Chapter

APSCUF Ad Hoc Teaching Committee, Bloomsburg University Chapter

Participant, 2017 Columbia County Hazard Mitigation Plan Update



**John G. Hintz**  
**Professor**



### **Scholarly Interests**

My research interest center broadly on sustainable management of land resources. My two foci are publicly owned (especially federally owned and managed) lands and the politics and ideologies that guide their management. I am particularly interested in debates over the presence and role of vertebrate predators, including reestablishing their presence and roles in places where predators have been eradicated (i.e., rewilding). A second, related, research thread centers on sustainable agriculture, specifically land use methods by those farmers that self-identify as sustainable food producers. Ideally, I would like to bridge these two research foci, assessing the potential for planned integration of publicly owned and sustainably farmed lands into ecologically sustainable and trophically rich integrated landscapes.

### **Education**

**2005** University of Kentucky, Ph.D., Geography,

**1998** University of Idaho, M.S., Geography,

**1988** Florida State University, B.S., Geography

### **2017 Teaching**

Spring: Land Resources Management (EGGS 302, 1 section)

Environmental Issues and Choices (EGGS 105, 3 sections)

Fall: U.S. Public Lands: Geography, Politics, Management (EGGS 386, 1 section)

Environmental Issues and Choices (EGGS 105, 3 sections)

### **2016-7 Service Activities**

APSCUF Meet and Discuss, nominated for and served as faculty co-chair

University-Wide Committee Work: Faculty Professional Development Committee (Spring 2017 only)

EGGS Departmental Committee Work: Budget Committee (Chairperson); Sabbatical Committee;

Curriculum/Assessment Committee; Observation and Evaluation Committee

Other Committee Work: BU Green Campus Initiative

### **Professional Conference Presentations**

“Teaching Sustainability: Methods and Lessons from the Bloomsburg University Outdoor Classroom,”  
Poster presented at the Association of American Geographers Annual Meeting. Boston, MA.



**Dr. Sandra Kehoe-Forutan**  
**Professor of Geography and Planning**

### **Scholarly Interests**

Necrogeography of St. Helena Island, South Carolina

### **Education**

The University of Queensland, Australia. PhD 1991  
The Ohio State University, Columbus OH. MCRP 1982  
Queens University, Kingston, Ontario Canada. Hons. BA 1980

### **2017 Teaching**

Spring: World Cultural Geography (EGGS102)  
Advanced Planning (EGGS350)

Fall: World Cultural Geography (EGGS102)  
Elements of Planning (EGGS250)

### **2017 Service Activities**

Chairperson, Space & Facilities  
Advisor, MPERS Student Organization





**Dr. Brett T. McLaurin**

**Professor**

### **Scholarly Interests**

I am a classically trained stratigrapher-sedimentologist who has worked in a variety of geologic settings in the United States and Mexico. Much of my research and geologic mapping has focused on fluvial successions in the Devonian – Pennsylvanian of Pennsylvania, the Cretaceous of Utah, Miocene-Pliocene fluvio-lacustrine deposits in Nevada, and fluvial systems in the Cretaceous of Sonora, Mexico. My industry background is largely in the aggregate mining industry (construction materials) and oil and gas exploration. Other research interests include geoarchaeology in northern Arizona and Mexico and medical geology studies in the Mojave Desert of southern Nevada. I utilize an integrative approach to research and lean heavily on GIS and remote sensing technology.

### **Education**

- 2000 Ph.D., Geology (Stratigraphy and Sedimentology), University of Wyoming  
Dissertation: Alluvial and Sequential Architecture of the Castlegate Formation, East-Central Utah.  
Advisor: Dr. Ronald J. Steel
- 1995 M. S., Geology (Stratigraphy and Sedimentology), UNC-Wilmington  
Thesis: Stratigraphic and Sedimentologic Analysis of the Paleocene Beaufort Group, Lenoir and Craven Counties, North Carolina. Advisor: Dr. William B. Harris
- 1993 B. S., Geology, UNC-Wilmington.

### **2015 – 2017 Publications**

- Jamie C. DeWitt, Brenda J. Buck, Dirk Goossens, Yuanxin Teng, James Pollard, **Brett T. McLaurin**, Russell Gerads, Deborah E. Keil, 2017, Health effects following subacute exposure to geogenic dust collected from active drainage surfaces (Nellis Dunes Recreation Area, Las Vegas, NV), Toxicology Reports, Volume 4, p. 19-31, <https://doi.org/10.1016/j.toxrep.2016.12.002>.
- David Larson, Amy Powers, Jean-Paul Ambrosi, Mika Tanji, Andrea Napolitano, Erin G. Flores, Francine Baumann, Laura Pellegrini, Cormac J. Jennings, Brenda J. Buck, **Brett T. McLaurin**, Doug Merkler, Cleo Robinson, Paul Morris, Meral Dogan, A. Umran Dogan, Harvey I. Pass, Sandra Pastorino, Michele Carbone & Haining Yang, 2016, Investigating palygorskite's role in the development of mesothelioma in southern Nevada: Insights into fiber-induced carcinogenicity, Journal of Toxicology and Environmental Health, Part B, 19:5-6, 213-230, DOI: 10.1080/10937404.2016.1195321
- Keil, D.E., Buck, B., Goossens, D., Teng, Y., Pollard, J., **McLaurin, B.**, Gerads, R., and DeWitt, J., 2016, Health effects from exposure to atmospheric mineral dust near Las Vegas, NV, USA: Toxicology Reports, <http://dx.doi.org/10.1016/j.toxrep.2016.09.009>
- Buck, B.J., Londono, S.C., **McLaurin, B.T.**, Metcalf, R., Mouri, H., Selinus, O., and Shelembe, R., 2016, The emerging field of medical geology in brief: some examples: Environmental Earth Sciences, v. 75, DOI 10.1007/s12665-016-5362-6
- Leetham, M., DeWitt, J., Buck, B., Goossens, D., Teng, Y., Pollard, J., **McLaurin, B.**, Gerads, R., and Keil, D., 2016, Oxidative stress and lung pathology following geogenic dust exposure: Journal of Applied Toxicology, DOI 10.1002/jat.3297
- Keil, D., Buck, B., Goossens, D., Teng, Y., Leetham, M., Murphy, L., Pollard, J., Eggers, M., **McLaurin, B.**, Gerads, R. and DeWitt, J., 2016, Immunotoxicological and neurotoxicological profile of health effects following subacute exposure to geogenic dust from sand dunes at the Nellis Dunes Recreation Area, Las Vegas, NV, Toxicology and Applied Pharmacology, Volume 291, p. 1-12, ISSN 0041-008X, <http://dx.doi.org/10.1016/j.taap.2015.11.020>.
- Goossens, D., Buck, B.J., Teng, Y., and **McLaurin, B.T.**, 2015, Surface and airborne arsenic concentrations in a recreational site near Las Vegas, NV: PLOS ONE, <http://dx.doi.org/10.1371/journal.pone.0124271>

- Baumann, F., Buck, B.J., Metcalf, R.V., **McLaurin, B.T.**, Merkler, D., and Carbone, M., 2015, Reply to "No Increased Risk for Mesothelioma in Relation to Natural-Occurring Asbestos in Southern Nevada": Journal of Thoracic Oncology, v. 10, no. 7, p. 64-65.
- Baumann, F., Buck, B.J., Metcalf, R.V., **McLaurin, B.T.**, Merkler, D., and Carbone, M., 2015, The presence of asbestos in the natural environment is likely related to mesothelioma in young individuals and women from Southern Nevada: Journal of Thoracic Oncology, v. 10, no. 5, p. 731-737.

#### **2015 – 2017 Conference Presentations** (\*Bloomsburg University undergraduate co-author)

- Helfrich, A.L.\* and **McLaurin, B.T.**, 2017, Lacustrine carbonate deposition and facies distribution within the Muddy Creek Formation (Miocene-Pliocene), Nellis basin, southern Nevada: Geological Society of America Abstracts with Programs. Vol. 49, No. 6, doi: 10.1130/abs/2017AM-304710.
- Adams, J.M.\*, **McLaurin, B.T.** and Whisner, S.C., 2017, Variability in deformational style of Appalachian Plateau folds, Sullivan County, Pennsylvania: Geological Society of America Abstracts with Programs. Vol. 49, No. 6, doi: 10.1130/abs/2017AM-304737.
- Metcalf, R.J., Buck, B.J. and **McLaurin, B.T.**, 2017, In defense of the term “naturally-occurring asbestos”: Geological Society of America Abstracts with Programs. Vol. 49, No. 6, doi: 10.1130/abs/2017AM-307158
- Carter, M., **McLaurin, B.**, Glasbrenner, J., 2017, Paleoliquefaction reconnaissance in eastern North Carolina: is there evidence for large magnitude earthquakes between the Central Virginia Seismic Zone and Charleston Seismic Zone?: Geological Society of America Abstracts with Programs. Vol. 49, No. 3 doi: 10.1130/abs/2017SE-289779.
- Buck, B.J., Metcalf, R.V., Berry, D., **McLaurin, B.T.**, Kent, D., Goossens, D., and Januch, J., 2016, Naturally occurring asbestos in soils, southern Nevada: Interpretations for wind distribution and human exposure: Geological Society of America Abstracts with Programs. Vol. 47, No. 7, doi: 10.1130/abs/2016AM-278831.
- Metcalf, R.V., Buck, B.J., and **McLaurin, B.**, 2015. Predicting Geologic Occurrence of Amphibole Asbestos: Lessons Learned from Southern Nevada. International Society of Exposure Science, Henderson NV, October 2015. Final Abstract Book, p. 132.
- Buck, B.J., Metcalf, R.V., Berry, D., Kent, D., **McLaurin, B.**, Goossens, D., Merkler, D., and Januch, J., 2015. Naturally occurring asbestos in the Southern Nevada region: Characterization and Potential for Human Exposure. International Society of Exposure Science, Henderson NV, October 2015. Final Abstract Book, p. 146.
- Buck, B.J., Keil, D., Goossens, D., DeWitt, J., **McLaurin, B.**, Teng, Y., David, W., Eggers, M., Leetham-Spencer, M., Murphy, L., Young, S., and Pollard, J., 2015. Human Health Risk Assessment of Mineral Dust Exposure, Nellis Dunes Recreational Area, NV, USA. International Society of Exposure Science, Henderson NV, October 2015. Final Abstract Book, p. 201.
- Rodemer, F.E.\*, Sandritter, M.J.\*, **McLaurin, B.T.**, James, R.N.\*, and White, J.J.\*, 2015, XRF analysis of Devonian to Mississippian lithofacies from drill core LYCO081\_0341, Lycoming County, Pennsylvania: Geological Society of America Abstracts with Programs. Vol. 47, No. 7, p.800.
- Sandritter, M.J.\*, **McLaurin, B.T.**, James, R.N.\*, Rodemer, F.E.\* and White, J.J.\*, 2015, Devonian to Mississippian lithofacies and depositional environments from drill core LYCO081\_0341, Lycoming County, Pennsylvania: Geological Society of America Abstracts with Programs. Vol. 47, No. 7, p.800.
- Metcalf, Rodney V., Buck Brenda J., Berry, David, Kent, Douglas, **McLaurin, Brett**, Sumner-Moore, Meg, Urso, Anna, Goossens, Dirk, Merkler, Doug, Jaunch, Jed, 2015, Naturally occurring asbestos near populated areas of southern Nevada: Unusual occurrences of fibrous actinolite and Libby-type Na-Amphibole: MedGeo2015: Book of Abstracts of the 6th International Conference on Medical Geology, UA Editora, Universidade de Aveiro, Portugal, p. 112. Volume - ISBN 978-972-789-449-9
- Sumner-Moore, Meg, Buck Brenda J., Metcalf, Rodney V., and **McLaurin, Brett**, 2015, Characterization and potential toxicity of fibrous amphibole minerals near the Las Vegas metropolitan area: MedGeo2015: Book of Abstracts of the 6th International Conference on Medical Geology, UA Editora, Universidade de Aveiro, Portugal, p. 36. Volume - ISBN 978-972-789-449-9

#### **2017 Teaching**

**Spring:** Natural Disasters (EGGS 107), Petroleum Geology (EGGS 463)

**Fall:** Physical Geology (EGGS 120), Stratigraphy and Sedimentology (EGGS 368)

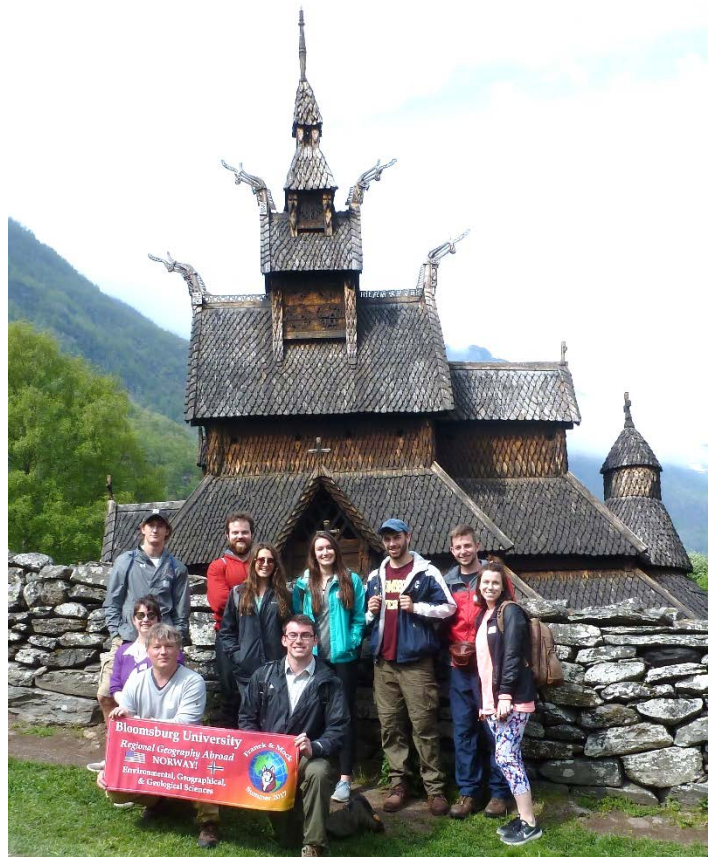


**Laura Geller Mock, Ph.D.  
Instructor**

### **Scholarly Interests**

Social and Political Geography  
Urban Geography

Struggles of the Local State within the context of a Supranational World.



### **Education**

The Pennsylvania State University. PhD 2000

The Pennsylvania State University. MS 1992

Smith College, BA, 1990

### **Teaching Activities**

The highlight of 2017, for me, was Regional Geography Abroad (EGGS 211). Dr. Franek and I lead a group of Bloomsburg students on a 3-week field course in Norway. We landed in the medieval port city of Bergen and, from there, traveled over 3,000 miles throughout Norway via trains, ferries, and auto. The group studied Norway's many maritime resources while visiting sites such as the traditional cod-fishing village of Å, north of the Arctic Circle and the country's oil "capital," Stavanger, in southern Norway. We experienced Norway's physical geography as we attempted to trek through several feet of snow at the Arctic Circle and hiked the Jostedal Glacier. From ferry trips along many famous fjords, to days spent exploring the ancient architecture of Norwegian cities, every day offered us a special opportunity to explore Norway's rich physical, cultural, economic, and historical geographies.

### **2017 Teaching**

Spring: World Cultural Geography (EGGS 102)  
World Regional Geography (EGGS 104)

Summer: Regional Geography Abroad (EGGS 211)

Fall: World Regional Geography (EGGS 104)  
Geography of United States and Canada (EGGS 200)





**Dr. Matthew C. Ricker**  
Assistant Professor



**2017 Bloomsburg Soil Judging Team**

<http://mcricker.weebly.com/>

#### Scholarly Interests

1. ***Environmental Functions of Floodplain Soils***: My students and I are researching the impacts of land use on floodplain landscapes of the Susquehanna River. Our goal is to quantify water quality improvement functions provided by alluvial soils, including trace metal storage and annual sediment trapping.
2. ***Soil Mapping (Geoarchaeology), Proyecto Arqueológico Waka', Guatemala***: I am mapping soils in El Perú Waka', a Maya archeological site in Guatemala. The goal of this research is to link soil characteristics with surface hydrology models to understand how the Maya managed surface water resources.

#### Education

Ph.D. (2014) Forestry (Biogeochemistry Concentration). Auburn University, Auburn, AL.

M.S. (2010) Environmental Sciences (Soil Concentration). University of Rhode Island, Kingston, RI.

B.S. (2006) Geology. University of Mary Washington, Fredericksburg, VA.

#### Peer-Reviewed Publications (2015-Present)

- Lockaby, B.G., N. Noori, W. Morse, W. Zipperer, L. Kalin, R.M. Governo, R. Sawant, and **M.C. Ricker**. 2016. Climatic, ecological, and socioeconomic factors associated with West Nile virus incidence in Atlanta, Georgia, U.S.A. *Journal of Vector Ecology* 41:232-243.
- Odhiambo, B.K., **M.C. Ricker**, L.M. Le Blanc, and K.A. Moxey. 2016. Effects of forested floodplain soil properties on phosphorous concentrations in two Chesapeake Bay sub-watersheds, Virginia, USA. *Environmental Science and Pollution Research* 23:16056-16066.
- Ricker, M.C.**, B.G. Lockaby, G.D. Blosser, and W.H. Conner. 2016. Rapid wood decay and nutrient mineralization in an old-growth bottomland forest. *Biogeochemistry* 127:323-338.
- Pierfelice, K.N., B.G. Lockaby, K.W. Krauss, W.H. Conner, G.B. Noe, and **M.C. Ricker**. 2015. Salinity influences on above- and belowground net primary productivity in tidal wetlands. *Journal of Hydrologic Engineering* DOI:10.1061/(ASCE)HE.1943-5584.0001223.
- Brodbeck, A.B., J. LeCompte, A.L. Meder, **M.C. Ricker**, M. Wedge, H. Schurman, and C.J. Anderson. 2015. Evaluating a campus nitrogen-budget for Auburn University, Alabama, USA. *Urban Ecosystems* 18:1187-1211.
- Ricker, M.C.** and B.G. Lockaby. 2015. Soil organic carbon stocks in a large eutrophic floodplain forest of the Atlantic Coastal Plain, USA. *Wetlands* 35:291-301.

#### Technical Reports and Guidebooks (2015-Present) (\*) denotes undergraduate researcher

- Ricker, M.C.**, D.B. Marken, and A. Rivas. 2017. Chapter VI: Soil coring transects in surface water features: Xucub, Northeast Tank, and Plaza 1 reservoirs. (In Spanish with English abstract). In: J.C. Pérez, editor, *Proyecto Arqueológico El Perú-Waka': Informe No. 14, Temporada 2016*. Fundación de Investigación Arqueológica Waka', Guatemala City, Guatemala. p. 161-222.

**Ricker, M.C.,** \*D.J. Steinhauser, and \*J.T. Prezkop. 2017. The Gibraltar Soil Series: A Historical Record of Coal Mining in the Schuylkill River Basin. In: J.A. Valentine editor, *Northeast Regional Pedology Field Tour Guidebook (Pennsylvania Portion)*, June 14-15, 2017. [Available Online.](#)

**Presentations (2015-Present)** (\*) denotes undergraduate researcher, (†) denotes presentation award

**Ricker, M.C.** and D.B. Marken. (Harrisburg, PA – October, 2017) - Application of traditional soil pedology in Maya archaeology: Examples of interdisciplinary research at El Perú-Waka', Guatemala. PAPSS Annual Meeting. Invited presentation.

**Ricker, M.C.,** D.B. Marken, and A. Rivas. (Tampa, FL - October, 2017) - Utilizing soils to understand Maya water management at El Peru-Waka', Guatemala. Soil Science Society of America Annual Meeting.

\*Sullivan, R.J., \*D.J. Steinhauser, and **M.C. Ricker.** (Bloomsburg, PA - April, 2017) - Trace Metals in Coal Contaminated Alluvial Soils. Bloomsburg University College of Science and Technology Undergraduate Research Day.

\*Prezkop, J.T., \*S.M. Savidge, and **M.C. Ricker.** (Pittsburgh, PA – March, 2017) – Trace metal storage in coal legacy sediments deposited along the North Branch Susquehanna River, Pennsylvania. GSA Abstracts w/ Programs, Vol. 49, No. 2, doi: 10.1130/abs/2017NE-290565

\*Steinhauser, D.J., \*R.J. Sullivan, and **M.C. Ricker.** (Pittsburgh, PA – March, 2017) – Spatial analysis of contaminant metal trapping on floodplain surfaces of the Susquehanna River in Northeastern Pennsylvania. GSA Abstracts w/ Programs, Vol. 49, No. 2, doi: 10.1130/abs/2017NE-290435.

**Ricker, M.C.** (Lewisburg, PA – January, 2017) - The ghost of coal mining past: Industrial legacy sediments in the Susquehanna River watershed. Susquehanna River Heartland Coalition for Environmental Studies Winter Meeting. Invited presentation.

**Ricker, M.C.** (San Francisco, CA – December, 2016) - Major biotic and abiotic factors that influence soil carbon dynamics in forested floodplains of the eastern United States. American Geophysical Union Fall Meeting. Invited presentation.

\*Prezkop, J.T., \*S.M. Savidge, and **M.C. Ricker.** (Lewisburg, PA – November, 2016) – Analysis of soil geochemistry in tributary alluvial deltas of the Susquehanna River. 11<sup>th</sup> Annual Susquehanna River Symposium. †*Most outstanding undergraduate poster presentation.*

**Ricker, M.C.,** \*D.J. Steinhauser, \*J.T. Prezkop, \*S.M. Savidge, and \*B.M. Diehl. (Phoenix, AZ – November, 2016) – Environmental functions of alluvial soils in coal mining regions of eastern Pennsylvania. Soil Science Society of America International Annual Meeting.

\*Steinhauser, D.J. and **M.C. Ricker.** (Bloomsburg, PA – July, 2016) – Quantification of the spatial extent and water quality improvement functions of alluvial river islands in the North Branch Susquehanna River basin. 6th Annual Susquehanna Valley Undergraduate Research Symposium. †*Most outstanding poster presentation in Natural Sciences and Engineering.*

Marken, D.B., **M.C. Ricker,** A. Rivas, and \*E. Maxson. (Guatemala City, Guatemala – July, 2016) – El Urbanismo de Baja Densidad en las Tierras Bajas Mayas: El Caso de El Perú-Waka', Petén, Guatemala. XXX Simposio de Investigaciones Arqueológicas en Guatemala.

\*Steinhauser, D.J. and **M.C. Ricker.** (Bloomsburg, PA – April, 2016) – Waterborne contaminant removal and storage by alluvial river islands of the Susquehanna River: A case study in Bloomsburg, Pennsylvania. Bloomsburg University College of Science and Technology Undergraduate Research Day.

**Ricker, M.C.** (State College, PA – October, 2015) - Changes in riparian zone functions as a result of current and historical land use alteration. Penn State Ecosystem Science and Management Seminar Series. Invited presentation.

**Ricker, M.C.,** N. Noori, B.G. Lockaby, and R.M. Governo. (Providence, RI – June, 2015) – Linkages between water quality, biogeochemical processes, and larval southern house mosquito (*Culex quinquefasciatus*) growth in simulated breeding sites. Society of Wetland Scientists Annual Meeting.

\*Diehl, B.M. and **M.C. Ricker.** (Bloomsburg, PA – May, 2015) – The importance, genesis, and spatial extent of transient islands within the Susquehanna River in the Ridge and Valley Province of Pennsylvania. Bloomsburg University College of Science and Technology Undergraduate Research Day.

### 2017 Funding

- Growing Greener Grant Proposal 2017: Multi-County Soil Health Project. PA DEP. **M.C. Ricker** primary contributor for establishment of Agricultural BMP and Soil Health Systems Demonstration Site (\$12,000).
- Living with water: Classic Maya pond management at El Perú-Waka', Petén, Guatemala. National Geographic Society Committee for Research and Exploration Grant #HJ-100R-17. Co-PI: D.B. Marken, **M.C. Ricker**, J.C. Pérez, A. Rivas, D.A. Freidel (\$25,300).
- Geospatial Analysis of Trace Metals in Alluvial Landscapes: Implications for Riparian Plant Growth. Bloomsburg University Undergraduate Professional Experience Grant (PEG). Student Mentee: D.J. Steinhauser (\$3,000).

### 2017 Teaching

Spring: Wetlands Ecology w/ Lab (MARSCI 250)  
Geomorphology w/ Lab (EGGS 265)

Fall: Soil Resources Management w/ Labs (EGGS 303)  
Soil Judging Coach, MPERS Club activity (5th place overall team, 2 students in top 10)

### 2017 Service Activities

#### University Service:

- Member of the Bloomsburg University Teaching and Learning Enhancement (TALE) Committee
- Department representative on Sabbatical and Technology Committees

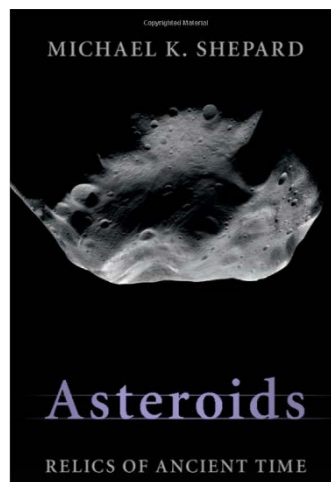
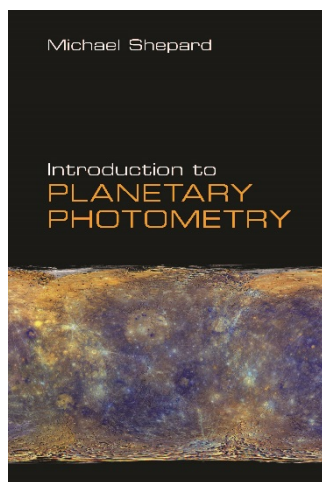
#### Manuscript Peer Review for the Following International Journals:

- *Catena, Estuaries and Coasts, Global Change Biology, Soil Science Society of America Journal, Wetlands*

#### Other Service Activities:

- 2017: Member Central Columbia High School Agricultural/Environmental Science Advisory Council
- 08/25/2017: Invited presentation on soil health related to no-till agriculture and cover crops at the USDA-NRCS Soil Health Field Day hosted by Artman Farms, Berwick, PA
- 06/14/17: Invited speaker and guide for the Gibraltar soil series stop near Pottstown, PA for the 2017 Northeast Pedology Field Tour





### Scholarly Interests

I have two major interests. The first is planetary photometry, the study of the way sunlight reflects off planetary surfaces and what we can learn from it. This year, I published an introductory book on that topic with Cambridge University Press. I also published a large data set of lunar soil (regolith) observations I made with a custom laboratory instrument (Bloomsburg University Goniometer, or BUG) I built in 2001. The observations took a decade to accumulate and, because of the difficulty in getting lunar samples to study, are one-of-a-kind.

My second research interest is the study of asteroids, and I previously published a general overview of the field. A year ago, I used the Arecibo radar to observe the largest known metallic asteroid, 16 Psyche. My published analysis of those observations included a 3D shape model and it is being used to plan a new NASA mission (also called Psyche). This year, I'm working on a 3D shape model for a second large metallic asteroid – 216 Kleopatra – that may be a mission target for the future.

### Recent Publications

- **Shepard, M.K.** *Introduction to Planetary Photometry*. Cambridge University Press. 2017.
- **Shepard, M.K.** et al. Radar Observations and Shape Model of Asteroid (16) Psyche. *Icarus*, 281, 2017.
- Sanchez, J., Reddy, V., **Shepard, M.K.** et al. Detection of Rotational Spectral Variation on the M-type asteroid (16) Psyche. *Astronomical Journal*, 153, Issue 1, article id. 29, 2017.
- Takir, D., Reddy, V., Sanchez, J. **Shepard, M.K.**, Emery, J. Detection of Water and/or Hydroxyl on Asteroid (16) Psyche. *Astronomical Journal*, 153, Issue 1, article id. 31, 2017.
- **Shepard, M.K.** D. Paige, and E. Foote, Apollo lunar sample BUG Observations, BUGLAB-L-BUG-4-APOLLO-SAMPLES-V1.0, NASA Planetary Data System, 2016.
- **Shepard, M.K.** et al. A Radar Survey of M- and X-class Asteroids III. Insights into their Composition, Hydration State, and Structure. *Icarus* 245, 2015.
- **Shepard, M.K.** *Asteroids: Relics of Ancient Time*. Cambridge University Press. 2015.

### 2017 Courses

The Planets (EGGS 106), Quantitative Methods (EGGS 150), Applied Geophysics (EGGS 480)

### 2017 Service Activities

Friends of the Bloomsburg Town Public Library, President-elect.  
Central Columbia High School, Agricultural Science Advisory Council.  
Columnist for the Press Enterprise newspaper, "The Curious Professor."



**Ms. Cheryl L. Smith**  
**Department Secretary**

### Education

B.S. in Communications (1984) from Clarion University of Pennsylvania

### Interests

Assistant for Environmental Science Learning Community (Fall 2018)  
Mentor for students and new staff employees  
Web designer

### Organizations

Kiwanis Club of Milton/Warrior Run (July 2015-December 2017)  
Bloomsburg University Chapter PASSHE Women's Consortium (May 2014-December 2016)  
Bloomsburg University Secretarial Roundtable (August 2012-January 2015)  
Bloomsburg University Clerical Organization (January 2011-December 2016)

### Professional Conferences, Certificates, and Service

**Search Committee for Clerk Typist 2:** Zeigler College of Business at Bloomsburg University of Pennsylvania (May 2017)

**EDU: Protect Children (Pennsylvania):** Certificate of Completion from the Pennsylvania State System of Higher Education (March 18, 2016)

**Emergency Food Bag Program:** Bloomsburg University of Pennsylvania (June 2015-September 2016)

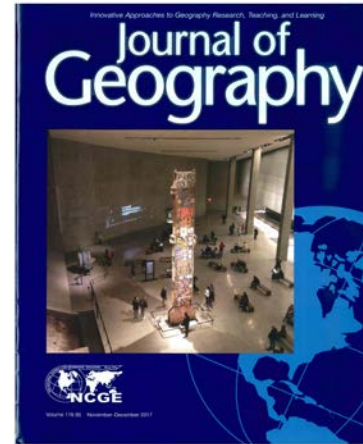
**PASSHE Women's Consortium Leadership Institute for Professional & Staff Employees:** State College, PA (June 10-12, 2015)

**Bloomsburg University's Student Employee of the Year:** Selection process (Spring 2015)

**Unlawful Harassment Prevention for Higher Education Staff Supervisors:** Certificate of Completion (February 9, 2015)

**PASSHE Women's Consortium Conference:** Bloomsburg University of Pennsylvania (September 25-26, 2014)

**Certificate of Appreciation for Outstanding Dedication to the PRAXIS Testing Program:** Bloomsburg University of Pennsylvania (2014)



Dr. Jennifer Haney published "A Geographic Approach for Teaching about Terrorism" in the *Journal of Geography*. The article was based on her experiences in teaching Geography of Terrorism. As part of the course, students traveled to the 9/11 Memorial & Museum in New York City. **(Photo credit: Cheryl Smith)**

EMPOWHER: Women's Leadership Symposium: Lewisburg, PA (October 3, 2013)



**Adrian Van Rythoven**

**Assistant Professor**

### **Scholarly Interests**

My research interests are mostly in the realm of economic geology and resource development. These interests encompass resources such as diamond/kimberlite, epithermal silver/base metals, carbonatites/rare earth metals, and industrial minerals.

### **Education**

University of Toronto, Toronto, Doctor of Philosophy, diamond geology, 2012

University of Toronto, Toronto, Masters of Science, geochemistry, 2006

University of Toronto, Toronto, Honours Bachelors of Science, geology, 2005

### **2017 Funding**

Faculty Professional Development Award; Oct. 18, 2017; \$1,600

URSCA project on copper ores with student Connor Gray; summer 2017; \$6,000

Junior Faculty TALE Teacher Scholar Award; \$1,366.94

### **2017 Teaching**

Spring: Petrology (EGGS 262)

Introduction to Environmental Science (EGGS 100) (3 sections)

Fall: Mineralogy (EGGS 261)

Introduction to Environmental Science (EGGS 100) (2 sections)

### **2017 Scholarship**

Safarzadeh, M. S., Horton, M., & Van Rythoven, A. D. (2017). Review of Recovery of Platinum Group Metals from Copper Leach Residues and Other Resources. *Mineral Processing and Extractive Metallurgy Review*, 1–17. <http://doi.org/10.1080/08827508.2017.1323745>

Van Rythoven, A. D., Schulze, D. J., Hauri, E. H., Wang, J., & Shirey, S. (2017). Intra-crystal co-variations of carbon isotopes and nitrogen contents in diamond from three North American cratons. *Chemical Geology*, 467, 12–29. <http://doi.org/10.1016/j.chemgeo.2017.06.027>

### **2017 Service Activities**

I am the department representative to the University Forum.





**Cynthia Venn**

**Professor**

### **Scholarly Interests**

1. Distribution and growth rates of gooseneck barnacles across the tropical Pacific Ocean in relation to environmental parameters and ENSO cycles.
2. Small scale distribution of salt marsh plant species in the mid-Atlantic region with respect to elevation and hydrology changes associated with sea level rise.
3. Research conducted with students largely involves water chemistry of both unimpaired streams and those impacted by acid mine drainage, and evaluating the effectiveness of various AMD treatment systems.

### **Education**

University of Pittsburgh, Pittsburgh, Pennsylvania, Ph.D. Geology, 1996  
 Texas A&M University, College Station, Texas, M.S. Oceanography, 1980  
 Vanderbilt University, Nashville, Tennessee, B.A. General Biology, 1974

### **2017 Teaching**

Spring: Special Topics: The Coastal Ocean (EGGS 390)  
           Oceanography (EGGS 259)  
           Physical Geology Laboratory (EGGS 120-C)  
           Research in Biology 1 (BIOL 390)  
 Fall:    Oceanography (EGGS 259)  
           Earth Materials (EGGS 260)

### **Presentations (2015-Present) (\*) denotes undergraduate researcher**

- Whisner, Jennifer and **Venn, Cynthia**. 2017. Hydrologic restrictions limit resilience of salt marsh in Greenbackville, VA. Presented at the Coastal and Estuarine Research Federation Biennial Conference, November 5-9, 2017, Providence, RI
- Venn, Cynthia**. 2017. Growth Rates for Tropical Pacific *Lepas anatifera* (Cirripedia: Lepadidae) Using Shell Oxygen Isotope Ratios. Presented at the Mid-Year Meeting of The Crustacean Society, Barcelona, Spain, June 19-22, 2017.
- Venn, Cynthia**. 2017. Correlation between Oxygen Isotopes and Temperature in shells of *Lepas anatifera* (Cirripedia: Lepadidae) from the Tropical Pacific in order to determine Growth Rate. Presented at the ASLO Aquatic Sciences Meeting, Honolulu, Hawaii, February 26-March 3, 2017.
- Venn, Cynthia**; Dunbar, Robert B.; and Mucciarone, David. 2016. Determining Growth Rates for *Lepas anatifera* (Cirripedia: Lepadidae) in the Tropical Pacific Using Shell Growth Patterns, Oxygen Isotope Ratios and In-situ Temperature Records. Presented at the AGU/ASLO Ocean Sciences Meetings, New Orleans, LA, February 9-14, 2016.

- \*Steinhauser, D.J.; \*Franz, Eric; **Venn, Cynthia**; and Hallen, Christopher P. 2017. Are there effects of hydraulic fracturing on Crystal Lake in Lycoming County, Pennsylvania? Geological Society of America *Abstracts with Programs*. Vol. 49, No. 2. doi: 10.1130/abs/2017NE-291477.
- \*Lenker, Mitchell R.; \*Hooker, David; **Venn, Cynthia**; and Hallen, Christopher P. 2017. Inorganic geochemical analysis of the water quality of Catfish Bog at Crystal Lake Camps, Lycoming County, PA. Geological Society of America *Abstracts with Programs*. Vol. 49, No. 2. doi: 10.1130/abs/2017NE-291470.
- \*Adams, James M.; \*Shapiro, Nathan S.; Venn, Cynthia; and Hallen, Christopher P. 2017. An ongoing assessment of Scarlift 15 abandoned mine drainage remediation system, Ranshaw (Northumberland County) PA. Geological Society of America *Abstracts with Programs*. Vol. 49, No. 2. doi: 10.1130/abs/2017NE-291449.
- \*Brauckmann, Matthew A.; \*Ciecierski, Dereck T.; **Venn, Cynthia**; and Hallen, Christopher P. 2017. Geochemical Analysis of Fishing Creek in Columbia County, PA. Geological Society of America *Abstracts with Programs*. Vol. 49, No. 2. doi: 10.1130/abs/2017NE-291465.
- \*Sullivan, R.J.; \*Wessner, Lucas J.; **Venn, Cynthia**; and Hallen, Christopher P. 2017. A geochemical analysis of residential water wells in Columbia County, PA. Geological Society of America *Abstracts with Programs*. Vol. 49, No. 2. doi: 10.1130/abs/2017NE-291490.
- \*Thompson, Eric, **Venn, Cynthia** and Hallen, Christopher P. 2016. Determination of water quality of natural water sources in state parks around the Susquehanna River Valley. Geological Society of America *Abstracts with Programs*. Vol. 48, No. 5. doi: 10.1130/abs/2016NC-275086.
- \*Mattesini, Matthew M., **Venn, Cynthia** and Whisner, Jennifer K. 2015. Vegetation cover and groundwater monitoring of a tidally restricted salt marsh in Greenbackville, Virginia, USA. Presented at Biennial Meeting of the Coastal and Estuarine Research Federation in Portland, Oregon, November 12, 2015.
- \*Maza, Zach; Buynevich, Ilya, and **Venn, Cynthia**. 2015. Not just fool's gold: XRF and SEM analysis of the effects of pyrite on a K-PG outcrop. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)
- \*[Napkora, Frank Z.](#); **Venn, Cynthia**; Hallen, Christopher P.; and \*Mitchell, Audra I. 2015. A sedimentological assessment of the effectiveness of the Pine Forest acid mine drainage treatment system, St. Clair, Schuylkill County, PA. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)
- \*[Mitchell, Audra I.](#), **Venn, Cynthia**, Hallen, Christopher P., and \*Napkora, Frank Z. 2015. Anoxic limestone drain – remediation of Pine Forest Mine in St. Clair, Pennsylvania. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)
- \*Mattesini, Matthew M.; Whisner, Jennifer K. and **Venn, Cynthia**. Using water levels and salinity to characterize the flow regime in a tidally-restricted mid-Atlantic salt marsh in Greenbackville, VA. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)
- \*Tompkins, Dan; **Venn, Cynthia**; Hallen, Christopher P. and Ricker, Matthew. 2015. Anthropogenic Effects on Soil and Stream Chemistry in the Middle Schuylkill River Watershed. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015)
- [Cornell, Sean](#); Oakley, Adrienne; **Venn, Cynthia** and Whisner, Jennifer K. 2015. Monitoring impacts of sea-level rise and anthropogenic impacts on a mid-Atlantic mainland salt marsh in Greenbackville, Chincoteague Bay, Virginia. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.126
- \*[Coleman, Shelby S.](#), Hallen, Christopher P. and **Venn, Cynthia**. 2015. Drinking before drilling: a study of three pristine water sites in Sullivan County, PA. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.78.
- \*[Brown, Morgan C.](#), \*Halat, Kyle A., **Venn, Cynthia** and Hallen, Christopher P. 2015. A look at the effectiveness of Scarlift 15 acid mine drainage treatment system on discharge into Shamokin Creek near Ranshaw (Northumberland County), PA. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.135

- \*[Rizzuto, James R.](#), \*Mattesini, Matthew M., **Venn, Cynthia** and Hallen, Christopher P. 2015. Geochemical analysis of wetland and streams in the Heberly Run watershed: western source waters of the East Branch of Fishing Creek, Sullivan County, PA. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.60
- \*[Mattesini, Matthew M.](#), Whisner, Jennifer K., **Venn, Cynthia**, McElhaney, Dylan and Cornell, Sean. 2015. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.119
- \*[Tompkins, Daniel](#), \*Bond, Kody A., \*Napkora, Frank Z., **Venn, Cynthia** and Hallen, Christopher P. 2015. Geochemical analysis of streams in the Sullivan Branch watershed: eastern source waters of the East Branch of Fishing Creek, Sullivan County, PA. 2015. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.60
- \*[Rosengrant, Chris W.](#), Hallen, Christopher P. and **Venn, Cynthia**. 2015. Water quality analysis of Fishing Creek: has fracking impacted Bloomsburg's water supply? 2015. Geological Society of America *Abstracts with Programs*. Vol. 47, No. 3, p.79.
- \***Venn, C.**, Whisner, J.B., \*Mattesini, M. M., \*McElhaney, D., and Cornell, S. R. 2015. Establishment of a hydrologic network to monitor the effects of sea-level change on vegetation in a mid-Atlantic salt marsh near Wallops Island, Virginia, USA. 2015 Aquatic Sciences Meeting, Granada, Spain (22-27 February 2015)
- \*Mattesini, M. M., **Venn, C.**, Whisner, J.B., and Shepard, M. 2015. Assessing salt marsh vegetation and quantifying the effects of storms and sea level rise in coastal Virginia, USA, using satellite imagery. 2015 Aquatic Sciences Meeting, Granada, Spain (22-27 February 2015)

## 2017 Service Activities

Member-at-Large, Northeast Section of the Geological Society of America  
 Member of Susquehanna River Heartland Coalition for Environmental Studies  
 Bloomsburg University-wide Promotion Committee  
 COST Academic Grievance Board Pool  
 COST Research Day Committee, Chair (Spring 2017)  
 EGGS Facilities Committee  
 EGGS Hyperwall Committee  
 EGGS Budget Committee  
 EGGS Observation and Evaluation Committee  
 Co-advisor of the Maps, Plans, Environment and Rocks Society (student club)



**Dr. Daryl Wenner**



### **Scholarly Interests**

Renewable Energy  
Society and Sports  
Variations in Birth Options

### **Education**

Ph.D. (2008) Geography (Cultural), University of Tennessee, Knoxville, TN.  
M.S. (1999) Geography, South Dakota State University, Brookings, SD.  
B.S. (1997) Geography (Environmental) and B.S. (1997) Earth Science, Pennsylvania State University, State College, PA.

### **2017 Presentations**

Franek, B. L., & **Wenner, D.** (2017). *A tale of two sites: The good, the bad, & the educational*. Poster Presentation. American Association of Geographers annual meeting. Boston.

### **2017 Teaching**

Spring: Introduction to Environmental Science (EGGS 100)  
Introduction to Physical Geography (EGGS 101)

Summer: Introduction to Environmental Science (EGGS 100)

Fall: Introduction to Environmental Science (EGGS 100)  
Introduction to Physical Geography (EGGS 101)  
World Cultural Geography (EGGS 102)

### **2017 Service Activities**

Pennsylvania Geographic Bee – Judge/Moderator, State Co-Coordinator





**Dr. Jennifer Whisner**  
**Associate Professor**



### EGGS 330 – Special Topics in Field Geology – Summer 2018

#### Scholarly Interests

My research involves collecting, analyzing, and interpreting field-based data such as the orientation of layered rocks and water levels and water chemistry in streams and water wells. The results of my work can be used to explore for and exploit our natural resources, but also to identify and characterize the impacts of humans on our environment. My scholarly activities focus on three areas: 1) structural geology and the development of curvature in mountain chains, 2) the effects of human modifications on streams, specifically on sediment transport and channel changes, and 3) water (including groundwater) quality.

#### Education

2010 Ph.D., Geology, University of Tennessee, Knoxville.

1994 M.S., Geology, Western Michigan University.

1991 B. S. Chemistry, University of Michigan, Ann Arbor

#### Conference Presentations (2015-17)

\*indicates Bloomsburg University student presenter

**Whisner, J.** and Venn, C., 2017, Hydrologic restrictions limit the resilience of salt marsh in Greenbackville, VA., *Presented at the Coastal and Estuarine Federation 24<sup>th</sup> Biennial Conference, Providence, RI, November 08, 2017.*

**Whisner, J.**, 2017, Undergraduate Research: The Good, the Bad, and the Ugly. **Keynote Presentation** - Bloomsburg University College of Science and Technology Research Day, April 10, 2017.

\*Sullivan, R., and **Whisner, J.**, 2017, Analyzing Local and Regional Groundwater Flow Using ArcGIS in Columbia County, PA. *Presented at the Bloomsburg University College of Science and Technology Research Day, April 10, 2017* **\*\*Winner - third place\*\***

\*Ciecinski, D. \*Shapiro, N., **Whisner, J.**, and Franek, B., 2016, In Search of Data – Fishing Creek Hydro Watch Summer 2016, *Presented at the Susquehanna River Symposium 2016 - A Tale of Two Rivers: The Delaware and Susquehanna, Bucknell University, Lewisburg, PA, November 11, 2016.*

**Whisner, J. K.**, Franek, B., and Beyer, P., 2016, Structured encounters with real data: sneaking up on doing science, Geological Society of America Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-284741, **invited presentation** at the Annual Meeting of the Geological Society of America, Sept. 25-28, in Denver, CO.

\*Shapiro, N., and **Whisner, J.**, 2016, Developing a Hydrologic Atlas for the Fishing Creek Watershed, *presented at the Bloomsburg University College of Science and Technology Research Day, April 10, 2016*

- \*Ciercierski, D., and **Whisner, J.**, 2016, Fishing Creek: Preliminary Ratings curves, *presented at the Bloomsburg University College of Science and Technology Research Day, April 10, 2016*
- \*Mattesini, M., Venn, C., and **Whisner, J. K.**, 2015, Vegetation cover and groundwater monitoring of a tidally restricted salt marsh in Greenbackville, Virginia, USA. *presented at the 23rd Biennial CERF Conference , Nov. 8-12, 2015, in Portland, OR.*
- Cornell, S., Oakley, A., Venn, C. and **Whisner, J.**, 2015, Monitoring the impacts of sea-level rise and anthropogenic impacts on a mid-Atlantic mainland salt marsh in Greenbackville, Chincoteague Bay, Virginia. Geological Society of America Abstracts with Programs. v. 47, p.126
- \*Mattesini, M., **Whisner, J. K.**, and Venn, C., 2015, Using water levels and salinity to characterize the flow regime in a tidally-restricted mid-Atlantic salt marsh in Greenbackville, VA. Geological Society of America Abstracts with Programs. v. 47, p.119,
- \*Mattesini, M., Venn, C., **Whisner, J.**, and Shepard, M., 2015, Assessing salt marsh vegetation and quantifying the effects of storms and sea level rise in coastal Virginia, USA, using satellite imagery. *Presented at Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, Feb. 22-27, 2015, in Granada, Spain.*
- Venn, C., **Whisner, J.**, Mattesini, M., McElhaney, D., and Cornell, S., 2015, Establishment of a hydrologic network to monitor the effects of sea-level change on vegetation in a mid-Atlantic salt marsh near Wallops Island, Virginia, USA. *Presented at Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting, Feb. 22-27, 2015, in Granada, Spain.*

## 2017 Funding

- 2017 **Funded: \$11,500 Degenstein Foundation through Susquehanna Heartland Coalition for Env'l Studies**  
Water quality and quantity along Fishing Creek and turtle population study along Pine Creek  
Co-PI with. B. Franek

## 2017 Teaching

- Summer: Special Topics in Field Geology (EGGS 330)  
Spring: Introduction to Environmental Science (EGGS100)  
Groundwater Hydrology (470)  
Senior Seminar in Environmental, Geographical, and Geological Sciences (495)  
Fall: Introduction to Environmental Science (100)  
Surface Hydrology (370)

## 2017 Service Activities

- APSCUF Nominations and Elections Committee  
APSCUF Social Committee  
APSCUH Ad Hoc Teaching Committee  
URSCA Grant Review Committee & Planning and Review Committee  
TALE seminar co-leader *Teaching Polygons – getting a new angle on your teaching*, with Denise Davison and Jennifer Johnson  
Green Campus Initiative  
Chair, Columbia Montour Coalition for Source Water Protection  
Secretary, Fishing Creek Watershed Association  
November Led Stream Table Simulator training at PA Department of Environmental Protection meeting  
Hosted and led discussion for Green Campus Initiative showing of *Dirty Business* movie on clean coal.  
September Ran stream table activity as part of the Columbia County Water Education Day (activities for more than 500 Columbia County 8<sup>th</sup> graders) <http://watereducationday.weebly.com/>  
Conducted Stream Table Simulator training at Montour Preserve on behalf of the North Central Conservancy for an audience of environmental educators  
Presentation to South Centre Township Planning Commission and Supervisors: *Carbonates – Information for Communities*  
May Ran an *Adventures in Science* groundwater activity for Berwick Cub Scouts.  
March Ran Enviroscope activity for children and their families at Columbia County Children's Fair  
January Columbia County Vo-Tech: four presentations on Wetlands and Flooding

**Dr. Stephen Whisner**  
**Associate Professor**



**Scholarly Interests**

I have a variety of interests. Foremost is the in the field of Structural Geology and Tectonics, I have worked in the Rockies and the Appalachians mainly in sedimentary foreland fold and thrust belts. I am currently interested in the changes in structural style at the boundary of the Pennsylvania Fold and Thrust belt and the Pennsylvania Plateau and how these changes manifest themselves in fracture patterns, changes in bedding orientation as well as change in microstructures. I have had a number of research students mapping in this area in the past and continued with a recent graduate, Jim Adams (Fall 2016) in the Spring of 2016. I am also interested in the use of thermal imagery for planetary analysis and terrestrial analogues of planetary features. My research interests also extend to past seismic activity (paleoseismology), especially in the comparatively seismically inactive Eastern United States. As of this summer (2017), I have started analyzing a shear zone in the central Pyrenees with a colleague from Sam Houston University.

**Education**

- 2005 Ph.D., Geology (Structural Geology and Tectonics), University of Tennessee  
Dissertation: The Middle Ordovician Tellico-Sevier Syncline: A Stratigraphic, Structural, and Paleoseismic Investigation. Advisor: Dr. Robert D. Hatcher, Jr.
- 1998 M. S., Geology (Structural Geology), Western Michigan University  
Thesis: Application of the Paleomagnetic Fold Test to Determine the Relative Timing of Sill Intrusion and Deformation in the Southwest Helena Salient, Montana. Advisor: Dr. Christopher J. Schmidt.
- 1994 B. S., Geology, Western Michigan University.

**2017 Teaching**

- Spring: Physical Geology (EGGS 120)  
Petrology (EGGS 262)
- Summer: Co-taught 6 week Geologic Field Camp in Spanish Pyrenees
- Fall: Physical Geology Lab (EGGS 120)  
Geomorphology (EGGS 265)

## Structural Geology (EGGS 369)

### 2017 Service Activities

- National Science Foundation (NSF) Structure and Tectonics proposal reviewer
- Member COST Curriculum Committee
- COST Science Iditarod
- Teaching Volunteer for Columbia County Water Education Day

### 2016 Teaching

Spring:           Physical Geology (EGGS 120)  
                      Petrology (EGGS 262)  
Summer:        Field Experiences in Geology (EGGS 330)

Fall:             Natural Disasters (EGGS 106)  
                      Structural Geology (EGGS 369)

### 2016 Service Activities

- Chair, Successful EGGS Departmental search committee for tenure track Economic Geologist
- National Science Foundation (NSF) Structure and Tectonics proposal reviewer
- Member COST Curriculum Committee
- COST Science Iditarod
- Teaching Volunteer for Columbia County Water Education Day





**Dr. Danqing (Dana) Xiao**

**Assistant Professor**

### **Scholarly Interests**

My research focuses on the representation of spatial knowledge, and how spatial thinking can inspire the current research of Geographic Information Science (GIScience). Rather than developing analytical tools for GISystems, I am more interested in looking at geographic information from the very beginning: the production of geographic information by individuals, and how people spatially interact with the environment.

### **Education**

- 2013      Ph.D. in Department of Geography, University of California Santa Barbara.
- 2009      Master of Science in Department of Spatial Information Science and Engineering, The University of Maine.
- 2006      Bachelor of Science in School of Space and Earth Science, Peking University.

### **2015-2017 Publications and Presentations**

**Xiao, Danqing**, & Lan, T. (2017). Mapping ideological opinions in China using online survey. *Annals of GIS*, 1-13.

**Xiao, Danqing**, Geosensors and Participatory GIS, UNM Geography Department Graduate Seminar, Ellison Hall Seminar Room, University of New Mexico, March 24<sup>th</sup>, 2016.

### **2017 Teaching**

EGGS 102	World Cultural Geography (Spring)
EGGS 264	Applied Cartography (Spring)
EGGS 242	Map Use and Analysis (Fall)
EGGS 102	World Cultural Geography (Fall)

### **2017 Service Activities**

EGGS Sabbatical Committee  
EGGS Scaffolding Committee  
EGGS 160 Redesign Team