Bloomsburg University of Pennsylvania
Department of Environmental, Geographical, and Geological Sciences
Annual Report 2017
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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 5th in the nation, an outstanding achievement!

The 2017 team competed at the Regional Championship in Rhode Island in October, and placed 5th overall out of 10 teams. Students Shannon Bradley (7th) and Daniel Steinhauer (8th) 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), Facebook (www.facebook.com/BUEGGSalumni), or our new Foundation page (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

2017 Presentations and Publications

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)
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

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


Presentations 2015-2017


Research Proposals 2015-2017

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

Academic Production (*Bloomsburg University undergraduate co-author/contributor)
Peer-Reviewed Journal Article

Book Review

Research/Conference Presentations


*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.


**Grants/Funding**


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.


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

Publications (2015-17)


Presentations (2015-17)


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
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
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 fluvi-o-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
   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


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


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             2017 Bloomsburg Soil Judging Team
Assistant Professor                                       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.

Peer-Reviewed Publications (2015-Present)


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

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


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.


*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.


*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.


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).
- 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

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)  
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)
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

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


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.


Maza, Zach; Buynyevich, 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)


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)


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)
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.

2017 Presentations

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 – Judger/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


*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.


*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 and in Greenbackville, VA. Geological Society of America Abstracts with Programs. v. 47, p.119.


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 8th 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 Enviroscape activity for children and their families at Columbia County Children’s Fair
January Columbia County Vo-Tech: four presentations on Wetlands and Flooding
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

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)
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. Geosensors and Participatory GIS, UNM Geography Department Graduate Seminar, Ellison Hall Seminar Room, University of New Mexico, March 24th, 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