

## David Richard Bowne, Ph.D.

**Current Position:** Assistant Professor, Department of Biology, Elizabethtown College, Elizabethtown, PA 17022, USA. (717) 361-1317 bowned@etown.edu

**Research Interests:** Landscape ecology, movement ecology of vertebrates, conservation biology, antibiotic resistant bacteria in the environment.

### Post-Doctoral Experience:

Visiting Assistant Professor and Research Associate, Department of Biology, Franklin and Marshall College.	2005 – 2007
Adjunct Assistant Professor, Department of Biology, Franklin and Marshall College.	Spring 2005
Adjunct Assistant Professor, Department of Biology, Elizabethtown College.	2004 – 2005
Visiting Assistant Professor of Ecology, Department of Biology, University of Richmond.	2003 – 2004
Undergraduate Research Coordinator and Visiting Scientist, Blandy Experimental Farm, University of Virginia.	Summer 2003
Research Associate, Department of Biology, University of Richmond.	2002 – 2003
Geographic Information Systems Specialist, Information Services, University of Richmond. Dr. Patricia Schoknecht, supervisor.	2002 – 2003
Instructor, Department of Landscape Architecture, University of Virginia.	Summer 2002, 2003

### Education:

Ph.D., Environmental Sciences with a concentration in Ecology, University of Virginia, Charlottesville, Virginia. May 2002. Dr. Michael Bowers, advisor.

M.S., Conservation Ecology and Sustainable Development, University of Georgia, Athens, Georgia. August 1997. Dr. Gary W. Barrett, advisor.

B.S. with Honors, Natural Resource Management with a concentration in Wildlife Science, Cook College, Rutgers University, New Brunswick, New Jersey. May 1994. Dr. Jean Marie Hartman, advisor.

George H. Cook Scholar.  
Cook College Honors Program.

### Publications: (\* designates undergraduate co-author)

Bowne, D.R. and E. Johnson.\* 2013. Comparison of soil carbon dioxide efflux between residential lawns and corn fields. *Soil Science Society of America Journal*. doi:10.2136/sssaj2012.0346N

Bowne, D.R. In Review. Talking Turkey: Using a short story to facilitate learning and appreciation of energy flows through ecosystems. EcoEd Digital Library (<http://esa.org/ecoed>).

Bowne, D.R. and J.M. Schoonmaker\*. In Preparation. Biased sex ratio and age distribution in an urban population of *Chrysemys picta* (painted turtle). *Chelonian Conservation and Biology*.

Bowne, D.R., A. L. Downing, M.F. Hoopes, K. LoGiudice, C. L. Thomas, L. J. Anderson, T. Gartner, D. J. Hornbach, K. Kuers, J.L. Machado, B.R. Pohlada, and K. L. Shea. 2011.

- Transforming Ecological Science at Primarily Undergraduate Institutions through Collaborative Networks. *Bioscience*. 61(5): 386-392.
- Bowne, D.R. 2008. Terrestrial activity of *Chrysemys picta* in northern Virginia. *Copeia*. 2008(2): 306 – 310.
- Bowne, D.R. 2007. Is the insurgency growing? A novel analysis of the spatial and temporal dynamics of the Iraqi insurgency. *Defense and Security Analysis*. 23: 115 – 118.
- Freedberg, S. and D.R. Bowne. 2006. Mark-recapture of maturing juveniles reveals non-Fisherian sex ratios in a reptile with environmental sex determination. *Evolutionary Ecology Research*. 8: 1499 – 1510.
- Bowne, D.R., M.A. Bowers, and J.E. Hines. 2006. Connectivity in an agricultural landscape as reflected by interpond movements of a freshwater turtle. *Conservation Biology*. 20: 780 – 791.
- Bowne, D.R. and H. White\*. 2004. Searching strategy of *Chrysemys picta* (painted turtle) across spatial scale. *Animal Behaviour*. 68: 1401 – 1409.
- Bowne, D.R. and M.A. Bowers. 2004. Interpatch movements in spatially structured populations: a literature review. *Landscape Ecology*. 19: 1 – 20.
- Bowne, D.R. 2003. Interpond movement patterns of *Chrysemys picta picta* (eastern painted turtle) in Virginia. *Chelonian Conservation and Biology*. 4: 739 – 741.
- Stewart, S.D. and D.R. Bowne. 2003. Geographic Information Systems (GIS) exercise in demography. Syllabi and Instructional Materials in Demography, 4<sup>th</sup> edition. Rebecca Nees and Loretta Bass, editors. American Sociological Association: Washington, D.C.
- Haddad, N., D.R. Bowne, A.Cunningham, B. Danielson, D. Levey, S. Sargent, T. Spira. 2003. Corridor use by diverse taxa. *Ecology*. 84: 609 – 615.
- Bowne, D.R. 2002. *Chrysemys picta picta* (Eastern painted turtle). Predation. *Herpetological Review*. 33(2): 132.
- Wohl, D.L. and D.R. Bowne. 2002. Collected thoughts on negotiating for a position in academia. *Bulletin of the Ecological Society of America*. 83: 129 – 130.
- Barrett, G.W., J.D. Peles, and D.R. Bowne. 2001. Predation on the hispid cotton rat (*Sigmodon hispidus*) by snakes and owls. *Georgia Journal of Science*. 59: 94 – 100.
- Bowne, D.R., J.D. Peles, and G.W. Barrett. 1999. Effects of landscape spatial structure on movement patterns of the hispid cotton rat (*Sigmodon hispidus*). *Landscape Ecology*. 14: 53 – 65.
- Peles, J.D., D.R. Bowne, and G.W. Barrett. 1999. Influence of landscape structure on movement patterns of small mammals. *Landscape Ecology of Small Mammals*. Gary W. Barrett and John D. Peles, editors. Springer-Verlag: New York.

### **Teaching Experience (Primary Instructor):**

Elizabethtown College

Geographic Information Systems (BIO 225)	Spring 2013
Principles of Evolution, Ecology, and Diversity of Life (BIO 112)	Spring 2012, 2013
Conservation Biology (BIO 373).	Spring 2010 - 2012
Geographic Information Systems (BIO 374)	Spring 2010 – 2012
Molecules, Cells, and Animal Systems (BIO 111)	Fall 2008 - 2011
General Ecology (BIO 313)	Fall 2008 - 2011
General Ecology Laboratory (BIO 313L)	Fall 2008 – 2011
Living with the Environment (BIO 103)	Spring 2009 - 2011

Introduction to Biological Science II Lab (BIO 112)	Spring 2005
Biological Concepts (BIO 101)	2004 – 2005
Introduction to Biological Science I Lab (BIO 111)	Fall 2004
Franklin and Marshall College	
Biostatistics (BIO 210)	Spring 2008
Principles of Evolution, Heredity, and Ecology (BIO 110)	Spring 2005 - 2008
University of Richmond	
Community Ecology (BIO 109, lecture & lab)	Spring 2004
Fundamentals of Ecology (BIO 351)	Fall 2003
Integrative Biology (BIO 203, lecture & lab)	Fall 2003
Independent Study in GIS (IS 390)	Spring 2003
Geographic Information Systems (workshops)	2002-2003
University of Virginia	
Introduction to Field Ecology (LAR 502)	Summer 2002, 2003
<b>Teaching Experience (Graduate Assistant):</b>	
University of Virginia	
Applied Ecology (LAR 535)	Spring 2001
Advanced Geographic Information Systems (EVSC 466/796)	Spring 1999
Geographic Information Systems (EVSC 362/795)	Fall 1998
Applied Statistics for Environmental Scientists (EVSC 503)	Spring 1998
Biodiversity (EVSC 426)	Fall 1997
University of Georgia	
General Biology (BIO 108)	1996 – 1997
General Biology (BIO 104).	Fall 1995

### **Undergraduate Research Students:**

- Alexandra Doran. Undergraduate Researcher at Elizabethtown College. Summer 2103. "Amphibian and turtle ecology in Pennsylvania and across the nation."
- Ryan Conway. Undergraduate Researcher at Elizabethtown College. Summer 2103. "Amphibian and turtle ecology in Pennsylvania and across the nation."
- Aleah Miller. Undergraduate Researcher at Elizabethtown College. 2012-2013. "Is Bog turtle habitat buried under 300 year old sediment?"
- Chelsea Payne. Undergraduate Researcher at Elizabethtown College. 2011-2013. "Analysis of frog biodiversity at Big Spring Run via audio recordings."
- Samantha Hartzell. Undergraduate Researcher at Elizabethtown College. 2012. "Salamander use of Big Spring Run."
- Autumn Phillips. Undergraduate Researcher at Elizabethtown College. 2011-2012. "Carbon sequestration by trees on the Elizabethtown College campus."
- Melanie Sturm. Undergraduate Researcher at Elizabethtown College. 2011-2012. "Induction of antibiotic resistance in *Enterobacter* through exposure to increasing concentrations of cadmium in soil." Departmental honors research.

- Erin Johnson. Undergraduate Researcher at Elizabethtown College. 2010-2012. "A comparison of soil respiration levels in turf grass and agricultural environments." Departmental honors research.
- Aleah Miller. Undergraduate Researcher at Elizabethtown College. 2011. "Mapping trees on the Elizabethtown College campus."
- Jennifer Schoonmaker. Undergraduate Researcher at Elizabethtown College. 2009-2010. "Population study of freshwater turtles on a Pennsylvania college campus: the effects of suburban habitat on population structure." College honors research.
- Michael Torre. Undergraduate Researcher at Elizabethtown College. 2009- 2010. "Amphibian use of agricultural streams."
- Catherine Luik. Undergraduate Researcher at Franklin and Marshall College. 2007. "Relation of antibiotic resistance in bacteria and heavy metal content of soil."
- Corinne Campbell. Undergraduate Researcher at Blandy Experimental Farm. 2003. "Age and sex-specific rates of movement in *Chrysemys picta picta* as a result of re-established habitats."
- Jennifer Torgerson. Undergraduate Researcher at Blandy Experimental Farm. 2003. "Habitat selection by *Chrysemys picta*: Is it the ideal free distribution?"
- Kristen M. Reinhart. Undergraduate Researcher at Blandy Experimental Farm. 2001. "Source/sink: the influence of common snapping turtles (*Chelydra serpentina*) on the percent population of juvenile eastern painted turtles (*Chrysemys picta picta*)."
- Rebecca Goldman. Undergraduate Assistant at University of Virginia. 2001. "Promises and limitations of corridors."
- Heather White. Undergraduate Researcher at Blandy Experimental Farm. 2000. "Analysis of the effects of landscape structure on terrestrial movement of the eastern painted turtle (*Chrysemys picta picta*)."
- Daniel Scott. Undergraduate Researcher at Blandy Experimental Farm. 1998. "Orientation by eastern painted turtles toward water."

**Presentations at professional conferences:** (\*designates undergraduate co-author)

- Bowne, D.R., A. Doran\*, C.P. Bloch, D.L. Druckenbrod, J. Dosch, T.S. Fredricksen, D. Garneau, K.S. Genet, P.A. Kish, M.B. Kolozsvar, F.T. Kuserk, E.S. Lindquist, C. Mankiewicz, J.G. March, T.J. Muir, K.G. Murray, J.A. Simmons, R. Urban, C. Zimmermann. 2013. Population structure of freshwater turtles across North America: An Ecological Research as Education Network (EREN) collaborative project. Ecological Society of America. Minneapolis, MN.
- Bowne, D.R., C. Grand Pre, J. Hartranft, W. Hilgartner, D. Merritts, A. Miller\*, M. Rahnis, and R. Walter. 2013. Is bog turtle (*Glyptemys muhlenbergii*) habitat buried under 250 year-old sediment? Re-evaluating conventional wisdom concerning habitat loss. International Congress for Conservation Biology. Baltimore, MD.
- Hilgartner, W., D. Merritts, R. Walter, M. Rahnis, J. Hartranft, D. Bowne, A. Miller\*, C. Grand Pre, and C. Bernhardt. 2013. Millennial Stability and Post-settlement Burial of Bog Turtle (*Glyptemys muhlenbergii*) Habitat in Two Piedmont Valleys of Maryland and Pennsylvania. International Congress for Conservation Biology. Baltimore, MD.
- Walter, R., D. Merritts, D. Bowne, J. Hartranft, W. Hilgartner, C. Grand Pre, P. Mayer, M. Rahnis, and A. Miller\*. 2013. Habitat Restoration in Watersheds Impacted by Legacy

- Sediments and Implications for the Bog Turtle (*Glyptemys muhlenbergii*). International Congress for Conservation Biology. Baltimore, MD.
- Miller, A.\*, D.R. Bowne, C. Grand Pre, J. Hartranft, W. Hilgartner, D. Merritts, M. Rahnis, and R. Walter. 2013. Impact of historical milldams on habitat of the bog turtle (*Glyptemys muhlenbergii*), a federally listed species. Ecological Society of America, Mid-Atlantic Chapter. Dover, DE. **Won 2<sup>nd</sup> place for Best Undergraduate Poster.**
- Payne, C.\* and D.R. Bowne. 2013. Response of salamanders to legacy sediment removal at Big Spring Run, Lancaster, Pennsylvania. Ecological Society of America, Mid-Atlantic Chapter. Dover, DE.
- Payne, C.\*, S. Hartzell,\* and D.R. Bowne. 2012. Restoration stream data for amphibian populations at Big Spring Run, Lancaster County, PA, USA. Ecological Society of America. Portland, OR.
- Bowne, D.R., and J. Schoonmaker.\* 2012. Biased sex ratio and age distribution in a suburban population of *Chrysemys picta* (painted turtle). Ecological Society of America. Portland, OR.
- Johnson, E.\* and D.R. Bowne. 2012. A comparison of soil respiration in turf grass and agricultural environments. Ecological Society of America, Mid-Atlantic Chapter. Blacksburg, VA.
- Payne, C.\*, S. Hartzell,\* and D.R. Bowne. 2012. Pre-restoration stream data for amphibian populations at Big Spring Run, Lancaster County, PA. Ecological Society of America, Mid-Atlantic Chapter. Blacksburg, VA. **Won 1<sup>st</sup> place for Best Undergraduate Poster.**
- Phillips, A.\* and D.R. Bowne. 2012. Carbon sequestration by trees on the campus of Elizabethtown College, Pennsylvania. Ecological Society of America, Mid-Atlantic Chapter. Blacksburg, VA.
- Bowne, D.R. 2011. TURTLEPOP: Population Structure of Freshwater Turtles along an Urbanization Gradient. *In* Developing Collaborative Research Projects in the Ecological Research as Education Network (EREN). Ecological Society of America. Austin, TX.
- Bowne, D.R. 2011. Hey Buddy, How Much for the Carbon? Understanding a Biogeochemical Cycle by Developing a Business Plan to Sequester Carbon *In* REEFS 2011: Resources for Ecology Education Fair and Share. Ecological Society of America. Austin, TX.
- Bowne, D.R. 2010. Internalizing the environment: Using short stories to foster comprehension and personal appreciation of ecological concepts. Ecological Society of America, Pittsburgh, PA.
- Wohl, D.L. and D.R. Bowne. 2010. A landscape perspective on antibiotic resistance in soil bacteria. American Society of Microbiologists. Toronto, CN.
- Wohl, D.L. and D.R. Bowne. 2010. A landscape perspective on antibiotic resistance in soil bacteria. International Society of Microbial Ecology. Seattle, WA.
- Schoonmaker, J.\* and D.R. Bowne. 2010. Population study of freshwater turtles: the effects of suburban habitat on population structure. Ecological Society of America, Mid-Atlantic Chapter. Fredericksburg, VA.
- Torre, M.\* and D.R. Bowne. 2010. Amphibian use of agricultural streams. Ecological Society of America, Mid-Atlantic Chapter. Fredericksburg, VA.
- McDonald, R.\*, D.R. Bowne, and D.L. Wohl. 2009. Urban Ecology in Miniature: Spatial analysis of antibiotic resistance in *Enterobacter* spp. Isolates gathered from soils of Lancaster City, Pennsylvania. Ecological Society of America, Mid-Atlantic Chapter. Trenton, NJ.

- Bowne, D.R. and D.L. Wohl. 2008. Mapping antibiotic resistant bacteria across a landscape: a collaborative ecological experience for high school students, undergraduates, and faculty. Ecological Society of America, Milwaukee, WI.
- Wohl, D.L. and D.R. Bowne. 2008. Superbugs are everywhere! Antibiotic resistant bacteria in farms, forests, and front yards. Ecological Society of America, Milwaukee, WI.
- Bowne, D.R. 2007. Can ecology inform security? A metapopulation analysis of the insurgency in Iraq. Ecological Society of America, Mid-Atlantic Chapter. York, PA.
- Bowne, D.R. 2006. Can ecology inform security? A metapopulation analysis of the insurgency in Iraq. Ecological Society of America. Memphis, TN.
- Bowne, D.R. 2005 (Invited speaker). Connecting behavior to the landscape: Interactions between vertebrate behavior and landscape structure in measures of connectivity. International Congress of Ecology and Ecological Society of America. Montreal, Canada.
- Bowne, D.R. 2004. Non-nesting terrestrial behavior of *Chrysemys picta* (painted turtle). Society for the Study of Amphibians and Reptiles. Norman, OK.
- Bowne, D.R. 2003. How much dry land does a small, aquatic turtle use? Society for Conservation Biology. Duluth, MN.
- Bowne, D.R. 2003. What your students need to know: Core Concepts in GIS. Associated Colleges of the South - GIS Symposium. Southwestern University. Georgetown, TX.
- Bowne, D.R. 2003. Finding a university's place in the community: training local organizations in GIS. Associated Colleges of the South - GIS Symposium. Southwestern University. Georgetown, TX.
- Bowne, D.R. 2002. Contribution of immigration to population growth in *Chrysemys picta picta* (eastern painted turtle). Ecological Society of America. Tuscon, AZ.
- Reinhart, K.M.\* and D.R. Bowne. 2002. Source/sink: the influence of common snapping turtles (*Chelydra serpentina*) on the population density of juvenile eastern painted turtles (*Chrysemys picta picta*). Ohio Academy of Sciences. Columbus, OH.
- Haddad, N., D.R. Bowne, A. Cunningham, B. Danielson, D. Levey, S. Sargent, and T. Spira. 2001. Corridor use by diverse taxa: a comparative synthesis from a large-scale experiment. Society for Conservation Biology. Honolulu, HI.
- Bowne, D.R. 2001. Age/sex-specific rates of interpond movement of *Chrysemys picta picta* (eastern painted turtle). Ecological Society of America. Madison, WI.
- Bowne, D.R. and M.A. Bowers. 2001. Interpatch movements in spatially structured populations. American Institute of Biological Sciences. Washington, D.C.
- Bowne, D.R. 2000. Metapopulation, patchy populations, or separate populations? Frequency and extent of interpond movements by eastern painted turtles (*Chrysemys picta picta*). International Association for Landscape Ecology. Fort Lauderdale, FL.
- Bowne, D.R. 2000. Should I Stay or Should I Go?: Frequency and extent of movements between ponds by eastern painted turtles (*Chrysemys picta picta*) and implications for conservation. First Annual Arts and Sciences Research Exhibition, University of Virginia, Charlottesville, VA.
- Bowne, D.R. and J.T. Callahan. 1999. Painted Landscapes: Movement ecology of the eastern painted turtle (*Chrysemys picta*) in northern Virginia. Society for Conservation Biology. College Park, MD.
- Bowne, D.R. and J.T. Callahan. 1999. Painted Landscapes: Movement ecology of the eastern painted turtle (*Chrysemys picta*) in northern Virginia. Southeastern Population Ecology and Genetics meeting. Mountain Lake Biological Station, Mountain Lake, VA.

- Bowne, D.R., J.D. Peles, and G.W. Barrett. 1998. Microhabitat selection by *Sigmodon hispidus*. American Society of Mammalogists. Blacksburg, VA.
- Bowne, D.R. 1998. The nature of natural: towards a reconciliation of the natural/unnatural dichotomy. University of Virginia's Sixth Annual Interdisciplinary Conference. Academic Apocalypse Now: Thinking Toward 2000. University of Virginia, Charlottesville, VA.
- Bowne, D.R., J.D. Peles, and G.W. Barrett. 1997. Movement patterns of *Sigmodon hispidus* in a heterogeneous landscape. International Association for Landscape Ecology. Durham, N.C.
- Bowne, D.R. 1997. Ecological considerations for the Etowah River Greenway. Red Clay Conference. University of Georgia School of Law. Athens, GA.
- Peles, J.D., D.R. Bowne, and G.W. Barrett. 1996. Effects of landscape spatial structure on movement patterns of *Sigmodon hispidus*. American Society of Mammalogists. Oklahoma City, OK.

### **Grants:**

- 2012: Collaborative Interdisciplinary Scholarship Program, Elizabethtown College. "Integrating Science and Creative Writing to Enhance Student Learning." Co-PI: Dr. Matthew Skillen, Elizabethtown College. Outcome: Awarded. \$23,728.00. 2013-2015.
- 2010: Pennsylvania Department of Environmental Protection. "Herpetological Assessment of Big Spring Run, Lancaster County, PA." Outcome: Awarded. \$13,914.94. Summer 2010 and 2011.
- 2008: Student Challenge Awards Program, Earthwatch Institute. "Mapping antibiotic resistant bacteria across a landscape." Project includes support and training for 8 high school students. Co-PI: Dr. Debra Wohl, Elizabethtown College. Outcome: Awarded. \$16,326. Summer 2009.
- 2006: Student Challenge Awards Program, Earthwatch Institute. "Mapping antibiotic resistant bacteria across a landscape" Project includes support and training for 8 high school students. Co-PI: Dr. Debra Wohl, Elizabethtown College. Outcome: Awarded. \$16,895. Summer 2007.
- Wildlife Habitat Policy Research Program, National Council for Science and the Environment. "At your service: Provision of ecosystem services by habitat conservation." Co-PI: Dr. Kevin J. Boyle, Virginia Polytechnic Institute and State University. Outcome: Not funded.
- 2005: National Science Foundation. Directorate for Biological Sciences. "Population structure of painted turtles (*Chrysemys picta*) along an urbanization gradient." Outcome: Not funded.
- Virginia Department of Transportation. "Predicting sites of turtle mortality by automobiles." Outcome: Not funded

- 2001: National Science Foundation. Doctoral Dissertation Improvement Grants (DDIG) in the Directorate for Biological Sciences. 2001. "Linking individual behavior to populations processes at the landscape level."  
Outcome: Funded, \$9892.
- 1999: Linnaeus Fund. Chelonian Research Foundation. "Terrestrial movement and subsequent effects on population dynamics of *Chrysemys picta picta* (Eastern Painted Turtle)."  
Outcome: Funded, \$1000.
- Sigma Xi Grants-in-Aid of Research. "Quantification of costs associated with terrestrial travel by the eastern painted turtle."  
Outcome: Funded, \$700
- Exploration and Field Research Grant. The Explorers Club Washington Group and The A. Harvey and Phyllis K. Schreter Exploration Fund of Baltimore, Maryland "Habitat selection by the eastern painted turtle (*Chrysemys picta picta*): Terrestrial movement and subsequent effects on population dynamics."  
Outcome: Funded, \$1000.

#### **Academic Awards:**

- DuPont Fellowship, University of Virginia. 2000 – 2002.
- First Annual Arts and Sciences Research Exhibition. Third place in the Biological/Medical Sciences category. University of Virginia, Charlottesville, VA. 2000.
- Dean's Reserve Fellowship, University of Virginia. 1999 – 2000.
- Winston E. Parker Forestry Scholarship, 1992 – 1994.
- College of Agriculture and Environment Scholarship, Rutgers University. 1991 – 1994.
- Garden State Scholar, New Jersey. 1990 – 1994.

#### **Additional Professional Experience:**

- GIS Center Manager. Blandy Experimental Farm, Boyce, Virginia. Established and supervised the use of GIS (Arc/Info and ArcView) at this environmental field station and state arboretum of Virginia. Worked with faculty, staff, and students to integrate GIS into their research and job duties by teaching workshops, creating necessary spatial datasets, and guiding their projects. 1998 – 2002.
- Organic Farm Apprentice. Sussex, New Jersey. Engaged in the growing, harvesting, and marketing of organic produce. Summer 1994.
- Naturalist. Wharton State Forest, Hammonton, New Jersey. Created a nature program for the general public including guided hikes in the Pine Barrens and slide show presentations. Summer 1992.

#### **Professional Development/Community Outreach:**

- Invited speaker. "Understanding the past to inform the future: The impact of legacy sediments on aquatic ecosystems and their restoration." Seminar Series at Rider University. September 28, 2012.
- Project leader. TurtlePop: Population Structure of Freshwater Turtles along an Urbanization Gradient. An Ecological Research as Education (EREN) Pilot Project.



Coordinating and leading faculty at 32 institutions on a national research project.  
Ongoing.

Written and shared research protocols, laboratory exercise, and student assessment questions. Summer 2011 and 2012.

Led a research breakout session at EREN All Members meeting. Meredith College, N.C., June 28, 2012

Led a research training session at EREN All Members meeting. Meredith College, N.C., June 29, 2012

Invited speaker. "Amphibians at Big Spring Run: Pre-restoration." Big Spring Run Research Meeting. Franklin and Marshall College. May 18, 2012.

Invited speaker. "Let's learn about turtles." Hildebrandt Learning Center, Elizabethtown, PA. July 12, 2012.

Invited speaker. "Impacts of Climate Change: How would you recognize climate change when it is occurring?" Church of the Brethren. Elizabethtown, PA. March 11, 2012.

Invited speaker. "The Science of Fiction: Storytelling and Imagination in the Science Classroom." Bowers Writers House, Elizabethtown College. April 4, 2011.

Invited speaker. "Colonial History meets 21st Century Ecology: Factors Influencing Aquatic Salamanders in Lancaster County." Biology Seminar Series at Millersville University. February 16, 2011

Founding Member. Ecological Research as Education Network. (EREN), [www.erenweb.org](http://www.erenweb.org)

Invited Speaker with D.L. Wohl. "A Landscape Perspective on Antibiotic Resistance." Kings Gap Environmental and Training Center. Exposure Risks and Concerns health symposium. March 20, 2009.

Participant. Developing an ecological research collaboration at small colleges. Ohio Wesleyan University. March 26 – 28, 2009.

Invited Speaker. "Everything happens somewhere: incorporating spatial data into research and teaching with a geographic information system (GIS). Elizabethtown College. April 30, 2009.

Invited Speaker. "Counterinsurgency strategy in Iraq and Afghanistan: an ecological perspective." Campus Forum on Iraq, Afghanistan and Terrorism. Elizabethtown College. February 16, 2009.

Invited Speaker with D.L. Wohl. "A Landscape Perspective on Antibiotic Resistance." Pennsylvania Department of Environmental Protection. Emerging Contaminants Forum. January 24, 2008.

Invited Speaker with D.L. Wohl. "Superbugs are everywhere!!! Antibiotic Resistant Bacteria in the Farms, Forests, and Front Yards of Lancaster County." Franklin and Marshall College, November 2007.

Invited Speaker. "Which way to a pond? Search Strategy of the Painted Turtle (*Chrysemys picta*)." Elizabethtown College. November 2007.

Editor. "Biocarbon and corporate climate strategy: a business brief on emissions reductions via forestry and land use projects." Business for Social Responsibility. November 2007.

Contributing Writer. Ecosystem Marketplace: Scientific Insights.  
[www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)

Invited Speaker. "Which way to a pond? Search Strategy of the Painted Turtle (*Chrysemys picta*)." Lafayette College. February 2007.

- Invited Speaker. "Animal movements across fragmented landscapes: Can't get there from here?" Dickinson College. December 2006.
- Invited Speaker. "Animal movements across fragmented landscapes: Can't get there from here?" Ithaca College. December 2006.
- Invited Speaker. "Can ecology inform security? A metapopulation analysis of the insurgency in Iraq." International Studies program. Franklin and Marshall College. February 2006.
- Participant. Congressional Visits Day. Met with staff on Capital Hill to advocate federal funding for ecological research. Sponsored by the Ecological Society of America. May 2005.
- Invited Speaker. "Can't get there from here? Animal movements in fragmented landscapes." University at Albany. April 2005.
- Invited Speaker. "Can't get there from here? Animal movements in fragmented landscapes." Franklin and Marshall College. April 2004.
- Invited Speaker. "Can't get there from here? Animal movements in fragmented landscapes." Alfred University. February 2004.
- Planning Committee member. "Accessing Data for Positive Community Change." This leadership forum brought together academics, local government representatives, community leaders, and funders to discuss and illustrate the need for a clearinghouse of data to support community-based endeavors in Richmond, VA. University of Richmond, Jepson Alumni Center. November 2002
- Invited Speaker. "Over hill, over dale, a turtle's journey will never fail? Movement patterns of *Chrysemys picta picta*." Presentation to high school students. St. Christopher's School, Richmond, VA. Spring 2002.
- Discussion Organizer. "Dealing for your future: Negotiating salary, start-up, and other essentials in academic hiring." Organized and led with Dr. Debra Wohl, University of Richmond, a discussion section at the Ecological Society of America national meeting. Madison, WI. August 2001.
- Invited Participant. "Facilitating an electronic library of learning resources for undergraduate biology educators." American Association for the Advancement of Science. Washington, D.C. March 4 – 6, 2000.
- Aquatics Judge, Envirothon, Area II Virginia Soil and Water Conservation Districts, Blandly Experimental Farm, VA. April 23, 1999.
- Graduate Student Representative, Institute of Ecology, University of Georgia. 1996 – 1997.

**Membership in Professional Organizations:**

- Ecological Society of America, 1996 – present.
- Ecological Society of America, Education section, 2001 – present.
- Society for Conservation Biology, 1996 – present.
- American Society of Ichthyologists and Herpetologists, 2006 - present.
- Society for the Study of Amphibians and Reptiles, 1999 – 2006.
- Sigma Xi, 1998 – present.
- Golden Key National Honor Society, 1992 – present.
- American Society of Mammalogists, 1996 – 1997.

**Reviewer:**

- Acta Theriologica*
- American Midland Naturalist*
- Animal Behaviour*

*Animal Conservation*

*Behaviour*

*Canadian Journal of Zoology*

*Ecology*

*Freshwater Biology*

*Herpetologica*

*Journal of Herpetology*

*Landscape and Urban Planning*

*Landscape Ecology*

*Southeastern Naturalist*