

## Curriculum Vitae

### SUMMARY OF QUALIFICATIONS

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As an educational researcher and practitioner, I have twenty-nine years of experience teaching middle school and high school science, over 10 years as an adjunct instructor in higher education, three years as a full-time university faculty member, and one year as department chair of math and sciences. My teaching experience ranges from all science disciplines, but with an emphasis in life sciences and ecology, to research methods, science pedagogy, environmental education, and a variety of educator preparation courses.

### EDUCATION

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*Southern Illinois University – Carbondale, IL*

**Ph.D. in Curriculum and Instruction (Science and Environmental Education) 2007**

Dissertation: “Use Of The Oslo-Potsdam Solution To Test The Effect Of An Environmental Education Model On Tangible Measures Of Environmental Protection”

*Southern Illinois University – Carbondale, IL*

**M.S. in Zoology (Aquatic Ecology – Community Dynamics of Larval Amphibian Guilds) 1991**

Thesis: “Priority Effects Exerted By *Pseudacris triseriata* On *Hyla chrysoscelis* As Influenced By Sympatry With *Ambystoma texanum*”

*David Lipscomb College (Lipscomb University) – Nashville, TN*

**B.S. in Biology - Major: Biology Minor: Chemistry 1982**

**Certifications:** Illinois Professional Educator License - IEIN 490632 / License ID 1926389 **1987**

Louisiana Teaching Licensure - ID # T086743, C110572 **1982**

Tennessee Teaching Licensure - ID # 000197 **1982**

### RESEARCH INTERESTS

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#### Pedagogy

Performance measures of cost-effective, inquiry-based STEM education strategies

#### Impacts of STEM and Environmental Education

Tangible measures of positive personal and community impacts linked to STEM Education and Environmental Education programming (i.e., STEM / Environmental careers, personal sphere behaviors, public sphere actions, quantitative analysis of environmental protection or improvements)

**TEACHING EXPERIENCE:**

<b>POST-SECONDARY</b>	<b>START</b>
<b>Austin Peay State University – Clarksville, TN</b> Assistant Professor of Science Education & Education Generalist; Director of the Jack Hunt STEM Center	2016
<b>Midway University - Midway, KY</b> Chair of Math & Sciences; Assistant Professor of Biology, Environmental Science and Science Education Administrative duties as chair for Math, Biology, Chemistry, and Physical Sciences. Developed and taught courses in: General Biology, Exploring Life's Diversity; Principles of Environmental Science; Global Ecology; Ethical Issues in Science; Environmental Science Methods; Conservation Biology; Natural Resource Management in Diverse Cultural Contexts; Environmental Issues Investigations; and Science Education Methods; Director of the Center for Environmental Studies and Sustainability; Faculty Sponsor for the Midway Environmental Explorations Club; Technology Committee	2014
<b>Southern Illinois University – Edwardsville, IL</b> Adjunct Professor of Biology Instructor for Human Biology; Wetlands Restoration Advisory Group	2014
<b>Anton de Kom Universiteit - Institute for Graduate Studies and Research – Suriname</b> Visiting Professor; Workshops; Consultant; Instructor; Developed and taught Research Methods in Science and Environmental Education; Provided instruction and served as advisor for student development of master's thesis proposals; Director for two master's theses	2011 Summers
<b>Instituut voor de Opleiding Van Leraren - Suriname</b> Visiting Professor; Workshops; Consultant; Instructor Developed workshop course for pre-service and in-service teachers in Environmental Issues Investigations; Provided instruction and facilitated the design of issues investigations for secondary students	2006 Summers
<b>Southern Illinois University – Carbondale, IL</b> Adjunct Instructor; CI 427 Science Process and Concepts for Teachers of Grades K-8; CI 468 Science Methods for Middle and Senior High Schools; CI 498 Wildlife Issues in Education	2004
<b>Southwestern Illinois College – Belleville, IL</b> Adjunct Instructor; Instructor for "Principles of Biology and Lab; Ecology, Evolution, and Genetics and Lab; and Environmental Science	1996
<b>Southern Illinois University – Carbondale, IL</b> Laboratory Teaching Assistant; Taught Laboratory courses in: ZOOL 115 General Biology; ZOOL 250 Vertebrate Zoology; ZOOL 402 Natural History of the Vertebrates	1985
<b>MIDDLE SCHOOL – SECONDARY</b>	<b>START</b>
<b>Belleville Township High School East – Belleville, IL</b> Biology / Ecology Educator Developed and taught courses in Advanced Ecology; Wildlife Biology; Biology; Continuing Curriculum Development; School Improvement Committee: Long-range vision; North Central Association Committee; "Museums in the Classroom" coordinator and web site developer; Ecology Club Sponsor – included monthly field trips to natural areas, editing a monthly newsletter, community service projects, scheduling guest lecturers, organizational networking, assisting students with independent research projects, and development of the campus natural study area; Lead Teacher for the Ecowatch Biological Monitoring Project; Coordinator for the Belleville East / Loop Creek Habitat Restoration; Coordinator for the GLOBE Program; Coordinator for annual Voyageur Wilderness Programme experience in Canada	1989
<b>Waterloo Community Unit School – Waterloo, IL</b> Middle School Instructor Developed and taught courses in Physical Science; Earth Science; Life Science Coordinated middle School science program; Organized science fairs; Grades 6-8	1987
<b>Ouachita Christian School – Monroe, LA</b> Junior High and High School Science Educator Developed and taught all science courses: Physical Science; Earth Science; Biology; Chemistry; Anatomy/Physiology; Physics; Advanced Biology; Science Department Chair; Structured science curriculum; Organized annual science fairs; Sponsored Science Club; Grades 6-12	1982

**COURSES DEVELOPED / TAUGHT:****Austin Peay State University**

EDUC 2100: Foundations of Education (undergraduate)  
 EDUC 5080: Classroom Organization & Management (graduate)  
 EDUC 5360: Classroom Assessment & Evaluation  
 EDUC 5360: Teaching Science & Social Studies K-6 (graduate)  
 EDUC 6800: Seminar in Teaching Effectiveness  
 SCI 4020: Teaching Science K-6 (undergraduate)  
 SCI 4320: Problems in Science Education (graduate independent study)

**Midway University**

BIO 103/104: General Biology I and Lab (undergraduate)  
 BIO 155/156: Exploring Life's Diversity and Lab (undergraduate)  
 BIO/ENV 305: Global Ecology (undergraduate)  
 BIO 485: Internship in Biology (undergraduate)  
 BIO 487: Senior Research Data Collection (undergraduate)  
 EDU 421: Science Teaching Methods (undergraduate)  
 ENV 201/202: Principles of Environmental Science and Lab (undergraduate)  
 ENV 308/309: Environmental Science Field Methods and Lab (undergraduate)  
 ENV 415/515: Conservation Biology (undergraduate and graduate sections)  
 ENV 417/517: Investigating and Evaluating Environmental Issues (undergraduate and graduate sections)  
 ENV 421/521: Natural Resource Management in Diverse Cultural Contexts (undergraduate and graduate sections)  
 ENV 485: Internship in Environmental Science (undergraduate)  
 ENV 495: Environmental Science Capstone/Practicum (undergraduate)

**Southern Illinois University – Edwardsville**

BIO 140: Human Biology (undergraduate)

**Southern Illinois University – Carbondale**

BIO 115: General Biology Lab (undergraduate)  
 CI 415: Environmental Issues Investigations for Teachers (undergraduate)  
 CI 427: Science Process and Concepts for Teachers of Grades K-8 (undergraduate)  
 CI 468: Science Methods for Middle and Senior High (graduate)  
 CI 498: Wildlife Issues in Education (undergraduate / graduate)  
 ZOO 250: Zoology Lab (undergraduate)  
 ZOO 402: Natural History of the Vertebrates (undergraduate)

**Anton de Kom Universiteit – Suriname**

Research Methods in Science and Environmental Education (graduate)  
 Advisor / Committee Chair for two Master's Theses in Environmental Education

**Instituut voor de Opleiding Van Leraren - Suriname**

Environmental Issues Investigations in Suriname (undergraduate)  
 Field Ecology: Coastal, Sand Savannah, Rainforest – Assisted (undergraduate)

**Middle and High School (Ouachita Christian School; Waterloo Junior High School; Belleville East High School)**

Advanced Ecology and Field Biology  
 Wildlife Biology  
 General Biology  
 Human Anatomy & Physiology  
 General Chemistry  
 General Physics  
 Earth Science

**Advising**

Number of Advisees - 39

## RESEARCH AND SCHOLARLY ACHIEVEMENT

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### Publications

Short, P. (2010). Responsible environmental action: Its role in environmental education and environmental quality. *Journal of Environmental Education, 41*(1), 1-14.

Volk, T., Hungerford, H. & Short, P. (2005). IEEIA leadership conference trainer's manual. U.S. EPA. Washington, D.C.

Short, P. & Baum, U. (1996). Henry White Experimental Farm: A resource manual for educators. Illinois Department of Agriculture in Springfield, Illinois.

Short, P. (Ed.) (1991). Waste Management Mania. Educational Service Center Region 16. Belleville, Illinois

### Presentations

Short, P. and Preyer, R. (2017, May). Failure is the answer! Culturally-relevant, student-driven outcomes. Presented at the Joint Conference of Tennessee Mathematics for Elementary Education and Tennessee Science for Elementary Education.

Short, P., Short, D. & Meegan, S. (2016, December). Working among the shadows to enlighten the world. Presented at the Tennessee Science Teachers Association Conference.

Lowrance, L., Short, P., & McConnell, J. (2016, October). Accepting disabilities and diversity in an aging teacher education faculty: Modeling what we teach. Presented at the Fall 2016 Conference for the Southeastern Regional Association of Teacher Educators.

Short, P. (2016, October). Environmental issue investigations and actions as an approach to connect science education with student civic engagement. Presented at the National Social Science Association Fall 2016 Professional Development Meeting.

Short, P. (2015, August). Pursuing higher forms of ignorance and obtaining a genuine education. Presented for the 2015 Freshman Convocation at Midway University.

Short, P. (2015, September). Institutional plan to engage undergraduate students in service work through habitat restoration and maintenance on the Midway University campus. Presented to the Bluegrass Higher Education Consortium Academic Leadership Academy.

Short, P. (2013, February). Environmental stewardship: It's a tapir - lessons from the indigenous peoples of Amazonia. Presented for St. George's Episcopal Lenten Series on Stewardship of the Creation. Belleville, Illinois.

Short, P. (2011, March). Three decades of environmental education. Presented to the Belleville Township District 201 Board of Education and public audience as a selected "Spotlight Teacher." Belleville, Illinois.

Short, P., Krasny, M., Duffin, M., Potter, G., Volk, T., Johnson, B., Fortescue, A., Soares, F., Hungerford, H., Schoedinger, S., and Kudryavstev, A. (2010, September). A framework for investigating the environmental impacts of environmental education. Symposium conducted for the Environmental Education - Environmental Quality Task Force at the Research Symposium of the North American Association for Environmental Education at the NAAEE annual conference.

Short, P. (2009, July). Envisioning higher education in Suriname: An educational perspective from the United States. Symposium conducted for the commission on restructuring higher education in Suriname.

- Short, P. (2007, November). An adaptation of the Oslo-Potsdam Solution for evaluating EE. Paper presented at the annual research symposium of the North American Association for Environmental Education.
- Short, P. (2007, November). Evaluating EE on environmental quality criteria linked to student actions. Paper presented at the annual meeting of the NAAEE.
- Short, P. (2007, November). Environmental education as a fulcrum for consilience in conservation efforts. Paper presented at the annual research symposium of the North American Association for Environmental Education.
- Short, P., & Zalocusky, K. (2007, November). Environmental education and preservation of traditional plant knowledge in Suriname. Paper presented at the annual meeting of the North American Association for Environmental Education.
- Short, P., Hungerford, H., Volk, T., Wongsopawiro, D., Weger, S., Hurt, H., ... Wilson, B. (2006, October). Can environmental education be linked To environmental quality? Paper presented at the annual research symposium of the North American Association for Environmental Education.
- Short, P., & Zalocusky, K. (2006). Public attitudes toward traditional ethnobotanical education. Symposium on research in environmental education conducted for the Anton de Kom Universitaat in Paramaribo, Suriname.
- Short, P. & Amlung, T. (2002). Raindrops to Rivers: The Loop Creek Model for Restoration. Management guide presented for greenway preservation at Southwestern Illinois College in Belleville, Illinois
- Short, P. (1998, October). Migrations from the muck: Field trip presentation at pine hills ecological area for the Midwest Environmental Education Conference in Carbondale, Illinois.
- Short, P. (1998). Using genuine student research in environmental studies. Presentation for the Midwest Environmental Education Conference in Carbondale, IL
- Short, P. (1996). OASIS: Engaged learning in science. Annual Meeting of the Illinois Principal's Association in Chicago, IL.

## FUNDING

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<b>State Competitive:</b> TN DOE Tennessee Innovation in Preparation Grant (PI) – “Recruitment and retention of quality science educators through collaborative incentives with the APSU College of STEM” (funded \$49,960)	2017
<b>Internal:</b> Austin Peay ORSP Grant (Co-PI) – “Weeds to Reed: Ecology, Conservation, and the Modern Musician” (funded \$4433)	2017
National Competitive: NSF INCLUDES Grant Program (submitted – \$228,000 not funded)	2017
State Competitive: TN THEC Improving Teacher Quality Grant Program (submitted – \$75,000 not funded)	2016
Midway Raingarden Grant, Bluegrass GreenSource – Lexington, KY	2015
Habitat Action Grant, IDNR – Springfield, IL	2011
Lake Education Assistance Grant, IEPA, Springfield, IL	2000
Habitat Action Grant, IDNR – Springfield, IL	2000
Museums in the Classroom, ISBE – Springfield, IL	1997
Lake Education Assistance Grant, IEPA, Springfield, IL	1997
Habitat Restoration at the Henry White Farm, Walmart Corporation – Bentonville AR	1995
Environmental Issue Analysis Grant, ESC Region 16, St. Clair County, IL	1992
Acute Toxicity, Bioaccumulation, and Depuration of Cadmium in Larval Amphibians, Sigma Xi	1986

**Category A: Service to the University**

<b>Member</b> – APSU Undergraduate Research and Creative Activities Committee	2017-2018
<b>Member</b> – APSU Institutional Effectiveness Committee	2017-2018
<b>Member</b> – College of Education Key Assessment Rubrics Review Committee	2017-Present
<b>PeayClipse Event Science Methods Station</b> – Austin Peay Total Eclipse Event	August 21, 2017
<b>Member</b> – College of Education Faculty Search Committee (Reading/Literacy Position)	Summer, 2017
<b>Participant</b> – Rivers and Spires Martha Dickerson Eriksson College of Education Display Tent	April 21, 2017
<b>Volunteer</b> – Martha Dickerson Eriksson College of Education Advising Day	March 28, 2017
<b>Volunteer</b> - PeayClipse Training Session	March 14, 2017
<b>Liason - International Collaboration</b> with the University of Curaçao: Workshops on “Professionalism Among University Faculty” and “Research Methods”; Advisement on Faculty Research Projects; Meetings for APSU – UoC Professional Education Research Certificate Agreements	March, 2017
<b>Participant:</b> TACTE Spring 2017 Conference	February, 2017
<b>Member</b> – College of Education Faculty Search Committee (Classroom Management Position)	Spring, 2017
<b>Member</b> - College of Education Social Committee	2016-Present
<b>Member</b> - Planning Committee for CMCSS STEM Expo	2016-Present
<b>Member</b> - Department of Teaching & Learning Committee on Lesson Plan Templates	October, 2016
<b>Attendant</b> - AP Day College of Education Table	October 29, 2016
<b>Attendant</b> - College of Education Phone-a-thon for Registration	August 10, 2016
<b>Presenter</b> - College of Education Summit: “Preparing for the Big Event – 2017 Solar Eclipse”	June 21, 2016

**Category B: Service to the Profession**

<b>Board Member</b> – Tennessee Science Education Leadership Council	2017-Present
<b>Board Member</b> - Tennessee Environmental Education Association	2016-Present
<b>Member</b> - Partnership for Environmental Literacy in Tennessee	2016-Present

**Category C: Service to the Community**

<b>Participant</b> – Teacher Appreciation Event at Burt Elementary School	May 1, 2017
<b>Coordinator</b> – Planning Committee for CMCSS STEM Expo	April 10-11, 2017
<b>Participant</b> – Burt School Arbor Day Event	April 7, 2017
<b>Participant</b> – Burt School Lunch Event: “Teachers: Past, Present, and Future”	March 24, 2017
<b>Organizer</b> – STEM Lab Open House for Burt School Faculty	February 3, 2017
<b>Partner Representative</b> - Austin Peay Chapter of STEM Scouts Organization	2016-Present
<b>Consultant and Activities Developer</b> - St. John Vianny School STEM Day – Gallatin, TN	2016-2017
<b>Reviewer</b> - Moore Magnet School STEM Showcase – Clarksville, TN	November, 2016
<b>Member</b> - Environmental Literacy in TN Steering Committee Meeting	November, 2016
<b>Consulting Editor</b> - <i>Journal of Environmental Education</i>	2007-2012

**RELATED WORK EXPERIENCE**


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<i>Center for Instruction, Staff Development, and Evaluation – Carbondale, IL</i> Board of Directors; Research Associate; International Workshop Coordinator	2005-2016
<i>Regional Office of Education 25 Math and Science Partnership, ISBE – Mt. Vernon, IL</i> Science Inquiry Learning Specialist	2006
<i>HiKing Shorts Outdoor Experiences – Belleville, IL</i> Owner, Guide, Outfitter	1995-2000
<i>Henry White Experimental Farm, Illinois Department of Agriculture – Belleville, IL</i> Co-Coordinator and Impact Analysis Researcher	1993-1996
<i>Southern Illinois Zoology Research Assistant Assessing Reclaimed Strip-mined lands for Wildlife Habitat – Carbondale, IL</i>	1987
<i>Cooperative Wildlife Research Lab Field Assistant radio-collaring white-tailed deer fawns to gather data on bedding sites and mortality in various plant communities – Carbondale, IL</i>	1986

**AWARDS AND RECOGNITION**


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Academic Leadership Academy Fellow – Bluegrass Higher Education Consortium	2015
SGA Great Teacher Award – Midway College	2015
“Care About Air” Award – St. Louis Metro-East Air and Health Forum	2013
Principal’s Teacher Spotlight - Belleville East High School	2011
Invited Author for 40 <sup>th</sup> Anniversary Edition of the Journal of Environmental Education	2009
U.S. Presidential Scholars Distinguished Teacher	2005
Illinois Outstanding Biology Teacher Finalist – NABT	2005
Audrey Tomera Outstanding Doctoral Student Award, SIU-Carbondale	2003
Illinois Environmental Educator of the Year	1996
Excellence in Teaching Award, Southern Illinois University – Edwardsville, IL	1994
Illinois Math and Science Academy Award of Excellence – Aurora, IL	1993
Teacher of the Year: Ouachita Christian School – Monroe, LA	1985

**MEMBERSHIPS HELD**


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National Science Teachers Association	Current
Tennessee Science Teachers Association	Current
North American Association for Environmental Education	Current
Tennessee Environmental Education Association	Current
Tennessee Environmental Council	Current
National Social Science Association	Current
Southern Regional Association of Teacher Educators	Current
Tennessee Herpetological Society	Current
Phi Kappa Phi National Honor Society	
National Association of Biology Teachers	
Kappa Delta Pi Education Honor Society	
Sigma Xi, The Scientific Research Society	
The Ecological Society of America	
American Society of Ichthyologists and Herpetologists	
Society for the Study of Amphibians and Reptiles	
The American Society of Limnology and Oceanography	

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*Professional References*

Dr. Benita Bruster, Chair - Department of Teaching and Learning  
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Dr. Tom Buttery  
Martha Dickerson Eriksson College of Education  
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Dr. Harold Hungerford, Professor Emeritus  
Science and Environmental Education Coordinator  
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Dr. Trudi Volk, Professor Emeritus  
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