BIOGRAPHICAL SKETCH
Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

**NAME:** Bertz, Christine A.

**eRA COMMONS USER NAME (credential, e.g., agency login):**

**POSITION TITLE:** Research Assistant Professor

**EDUCATION/TRAINING:** (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training, if applicable. Add/delete rows as necessary.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>Completion Date MM/YYYY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodes College, Memphis, TN</td>
<td>B.S.</td>
<td>1998</td>
<td>Biology</td>
</tr>
<tr>
<td>Texas Christian University, Ft. Worth, TX</td>
<td>M.S.</td>
<td>2004</td>
<td>Biology</td>
</tr>
<tr>
<td>University of Mississippi, Oxford, MS</td>
<td>Ph.D.</td>
<td>2011</td>
<td>Biology</td>
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**A. PERSONAL STATEMENT**

I am currently a Research Assistant Professor at the Center for Research in Educational Policy (CREP) with over fifteen years of experience in research design, data collection, and reporting. My background in the field of Biology allows me to bring both theoretical and applied content knowledge to STEM educational research. Much of my experience has been in providing accurate, meaningful reports to aid in accountability and decision-making at the local, state, and federal level. My initial experience reporting to the State of Mississippi included water quality and fish mortality reports that required data to be of sufficient quality to be used in legal prosecution. As a field researcher for the Prairie Research Institute, my reports were used by the Illinois Department of Transportation to delineate construction corridors that complied with state and federal law, including determining whether remediation for development activities were required.

Most recently, my work has included management, coordination, and collaboration, not just with my immediate coworkers, but with senior researchers of diverse backgrounds in different academic departments and other internationally-recognized institutions. I have worked on research design and program evaluation for both very small and very large-scale projects. I assisted with evaluation and reporting for a five-year randomized controlled trial (RCT) conducted in three states in collaboration with the Smithsonian Science Education Center (SSEC) to validate the LASER model, an inquiry-based model for sustainable science instruction supported by an Investing in Innovation (i3) Validation grant. The SSEC was subsequently awarded an Extension to this i3 Validation grant in 2015 to examine long-term sustainability of the LASER model in North Carolina, and I led CREP’s evaluation of that work. I am currently Principal Investigator of LASER Focused, a five-year federal grant awarded to CREP by the Office of English Language Acquisition to develop and evaluate a new component of the LASER model to close the science achievement gap for English Learners.

**Refereed Journal Publications**


**Selected research papers and technical reports most relevant to the current application**


**Selected presentations most relevant to the current application**


**Bertz, C. A.** (2013, February). *Invasion of hurricane-disturbed scrub communities on barrier islands in Mississippi: A battle between native and non-native ecosystem engineers*. Invited presentation for the Illinois Natural History Survey Seminar, Champaign, IL.


B. POSITIONS AND HONORS

Professional Appointments

2016–present  Research Assistant Professor, Ctr for Research in Educ Policy, University of Memphis
2013–2016  Research Associate II, Ctr for Research in Educ Policy, University of Memphis
2012–2013  Botanist, Illinois Natural History Survey, University of Illinois
2006–2012  Biologist, Mississippi Department of Environment Quality, Oxford, MS
2009  Graduate Intern, Archbold Biological Station, Venus, Florida
2005; 2007  Lab Assistant, Memphis Zoo and Aquarium, Memphis, TN
1999–2002  Zookeeper, Memphis Zoo and Aquarium, Memphis, TN

Other Experience and Professional Memberships

2015 – Southern Appalachian Botanical Society (member)

Honors and Awards

2011  Dissertation Fellowship, University of Mississippi
2003–2004  Graduate Student of the Year, Texas Christian University
2004  Sigma Xi Award for Best Interdisciplinary Research, Texas Christian University
2003  Landers Foundation Scholarship, Texas Christian University
1998  Cum Laude graduate, Rhodes College
1994–1998  University Scholarship, Rhodes College

Service

2017 – Lichterman Nature Center, Plant Propagation (Volunteer)
2016 – Tennessee Exotic Pest Plant Council (Treasurer)
2015 – Tennessee Exotic Pest Plant Council (Board of Directors)
2015 – Peer reviewer for Journals (Am Midland Naturalist, Plant Ecology, Ecosphere)
2014 – Strawberry Plains Audubon Center – Hummingbird Festival (Volunteer)
2000  M.V. Treasure Oil Spill Cleanup, Cape Town, South Africa (Volunteer Supervisor)

C. CONTRIBUTIONS TO SCIENCE

1. Served as principal investigator or senior project staff on educational evaluations ranging from very small-scale (15-20 teachers) to large-scale (40+ schools in multiple districts). This includes work as PI on two multi-year evaluations of work implemented by the Smithsonian Science Education Center (SSEC) and funded by the U.S. Department of Education: LASER Focused and the LASER i3 Extension.

2. Published peer-reviewed articles contributing to the overall body of knowledge in the field of plant ecology in the southeastern United States. Specific topics include natural disturbance in upland mixed-hardwood forests, hurricane effects on Ceratiola ericoides Michx. (Florida rosemary), and growth patterns of invasive Panicum repens L. (torpedograss).

3. Served as peer-reviewer for multiple submissions to professional journals, including Plant Ecology, Ecosphere, and the American Midland Naturalist, to ensure rigorous standards in scientific publishing.
D. ADDITIONAL INFORMATION: RESEARCH SUPPORT AND/OR SCHOLASTIC PERFORMANCE

**Funded Research (last 3 years)**

**U.S. Department of Education**

Role: PI  
$1,565,658  
09/01/16-08/31/21

**LASER Focused: A Model for Teaching Inquiry-Based Science to English Learners**

LASER Focused is funded by the Office of English Language Acquisition to study a newly developed intervention for English Learners based on the Leadership and Assistance for Science Education Reform (LASER) model originally studied in CREP’s five-year LASER i3 evaluation.

**Women’s Foundation for a Greater Memphis**

Role: PI  
$25,000  
12/01/18-07/31/19

**Vision 2020 Initiative Year 3**

Vision 2020 is an initiative by the Women’s Foundation for a Greater Memphis which aims to lower the poverty level in zip code 38126 by 5% over five years by funding outreach and support programs in the zip code.

**Women’s Foundation for a Greater Memphis**

Role: PI  
$25,000  
01/01/18-07/31/18

**Vision 2020 Initiative Year 2**

Vision 2020 is an initiative by the Women’s Foundation for a Greater Memphis which aims to lower the poverty level in zip code 38126 by 5% over five years by funding outreach and support programs in the zip code.

**Smithsonian Science Education Center**

Role: PI  
$604,232  
09/01/15-07/29/18

**Smithsonian Science Education Center (SSEC) i3 Extension**

The SSEC i3 Extension continues to follow students and schools in North Carolina that experienced a five-year LASER i3 program evaluated by CREP from 2010-2015. This i3 Extension will determine the long-term effects of LASER on students and the sustainability of LASER by schools and districts in the absence of grant support.

**Women’s Foundation for a Greater Memphis**

Role: PI  
$25,000  
06/01/16-06/30/17

**Vision 2020 Initiative Year 1**

Vision 2020 is an initiative by the Women’s Foundation for a Greater Memphis which aims to lower the poverty level in zip code 38126 by 5% over five years by funding outreach and support programs in the zip code.

**Smithsonian Science Education Center**

Role: PI  
$72,654  
03/01/16-02/28/17

**Colorado LASER Initiative Year 2**

CREP is evaluating partial implementation of the LASER model at small scale in the Denver and Fort Collins, Colorado area. This work is based on the LASER model originally studied in CREP’s LASER i3 evaluation.

**Smithsonian Science Education Center**

Role: PI  
$46,194  
01/01/15-02/01/16

**Colorado LASER Initiative Year 1**

CREP is evaluating partial implementation of the LASER model at small scale in the Denver and Fort Collins, Colorado area. This work is based on the LASER model originally studied in CREP’s LASER i3 evaluation.