

Ethell Vereen, Jr.
Assistant Professor of Biology
Morehouse College

Division of Life Sciences
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PERSONAL PROFILE STATEMENT

I am highly motivated by a broad interest in environmental health, water quality, and environmental microbiology. My research focuses primarily on the ecology of waterborne diseases with an emphasis on water quality. I have expanded my research to focus on the use of metagenomics and other molecular tools to study the structure and dynamics of various microbial ecosystems (more specifically urban watersheds); and to include activities on the mechanisms and evolution of antibiotic resistance. My work on antibiotic resistance aims to facilitate a better understanding of how drinking water treatment and water quality may influence or promote antibiotic resistance. To investigate and identify the influence of environmental and anthropogenic pressures on the microbial communities of urban watersheds, my work explores the microbial community composition and functions, as deduced from metagenomic data. I am also interested in exploring undergraduate STEM education, with an emphasis on culturally relevant pedagogy in the sciences.

PROFESSIONAL PREPARATION

SC State University	BS	Biology	2002
University of Georgia	MS	Environ. Health	2005
University of Georgia	PhD	Ecology	2010
Emory University	Postdoctoral training	Microbial Ecology/ Science Education	2011-2014

PRESENTATIONS, PUBLICATIONS, AND WORKS IN PROGRESS

RECENT PRESENTATIONS

- Invited Speaker, Our Voices Seminar Series, Emory University (March 2021)
- Keynote Speaker, Odum School of Ecology, University of Georgia Graduate Student Symposia (February 2021)
- Invited Speaker, Spelman-Broad Institute Antibiotic Resistance and Microbiomes Workshop (January 2021)
- Invited Speaker, NSF Delaware State University HBCU-UP TEAL Program Speaker Series (November 2020)

RECENT PUBLICATIONS AND WORKS IN PROGRESS

- **Vereen, E.** (2021). Exploring EnvironmenATL Justice with Data Analytics and Visualization. Social Justice and Community Change, QUBES Educational Resources. doi:10.25334/D0EN-0R77
- A.A. Majewska and **E. Vereen.** (2021). Fostering Student-Student Interactions in a First-Year Experience Course Taught Online during the COVID-19 Pandemic. Journal of Microbiology and Biology Education. doi.org/10.1128/jmbe.v22i1.2417
- J. Lottie and **E. Vereen.** Environmental inequality: Identifying sewage spills and potential inequalities by socioeconomic status. National Council of Undergraduate Research. April 2021
- K. White and **E. Vereen.** Characterization of Proctor Creek Watershed for Preliminary Assessment of Microbial Contaminants, Nutrient Fluxes, and Combined Sewer Overflows Impact on Urban Watershed Water Quality. National Council of Undergraduate Research. April 2021
- Lu, J., I. Struewing, **E.Vereen**, A.E. Kirby, K. Levy, C. Moe, and N. Ashbolt. 2016. Molecular Detection of Legionella spp. and their associations with *Mycobacterium* spp., *Pseudomonas*

aeruginosa and amoeba hosts in a drinking water distribution system. *Journal of Applied Microbiology*. 120: 509-521.

PROFESSIONAL CONTRIBUTIONS AND SERVICE

PROFESSIONAL MEMBERSHIPS AND RECENT AWARDS

2021 Carnegie Fellow, Morehouse Faculty Development, Teaching and Advising Center
1,000 Inspiring Black Scientists in America, The Community of Scholars, January 2021
2019-2020 Vulcan "Teaching in Excellence" Award, Morehouse College
2018, Inducted to the National Society of Leadership and Success
American Society for Microbiology
Ecological Society of America
National Science Teaching Association
Association for Biology Laboratory Education

NATIONAL SERVICE

Member, NSF NEON Community Engagement Technical Working Group
Board of Directors, Environmental Leadership Program
Board of Directors, South Carolina State University Foundation
Reviewer, NSF Panels (GEO, DEB, and HBCU-UP Directorates)
Reviewer, Scientific Journals (*Journal of Applied Microbiology*, *Science of the Total Environment*, *Computation and Structural Biotechnology*)

DIVISION OF LIFE SCIENCE SERVICE

Division of Life Science Curriculum Committee
Division of Life Science Taskforce for Online Education
Chair, Biology Program Seminar Series

MOREHOUSE COLLEGE INSTITUTIONAL SERVICE

Research Coordinator, Morehouse College McNair Program
Member, Morehouse College General Education Committee
Member, Morehouse College Library and Media Committee
Appointed Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
Compliance Certification Team on the Educational Program Subcommittee, Morehouse College. 2017

GRANTS AND ASSISTANTSHIPS

E. Vereen, PI/PD. NSF HBCU Up Research Initiation Award (RIA). *Metagenomic Approach to Assess Water Quality and Microbial Load Variability of an Urban Watershed*, 05/01/19 – 04/31/22: \$300,000

Lipp, E.K., PI/PD, with S. Rajeev (UGA), M.B. Jenkins (USDA-ARS), R. Lowrance (USDA-ARS), P. Gay (UGA), and **E. Vereen** (UGA). U.S. Department of Agriculture National Research Initiative (NRI) Competitive Grant – (Water and Watersheds). *Watershed scale transport of Salmonella, Campylobacter and indicator organisms in the Satilla river basin*. 09/01/06 – 08/31/09. Award: \$384,097.