

ELIZABETH G. BARNES

PhD Student, Graduate Teaching Associate
Department of Geography & Sustainability
University of Tennessee
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EDUCATION

Ph.D. Geography, University of Tennessee, Knoxville (expected 2029)
Advisor: Sally P. Horn

M.S. Geography, University of Tennessee, Knoxville (2025)
Thesis title: Long-Term Fire and Vegetation History from Soil Charcoal in Boone
Creek Barrens, Indiana, U.S.A.
Advisor: Sally P. Horn

B.S. *Summa cum Laude*, Biological Sciences, University of Tennessee, Knoxville (2023)
Concentration in Ecology and Evolutionary Biology
Minors in Climate Change and Child & Family Studies

RESEARCH INTERESTS

Paleoecology, biogeography, Quaternary environments, conservation biology

TEACHING EXPERIENCE

2025-present Graduate Teaching Associate, Department of Geography & Sustainability, University of Tennessee. Instructor of record for physical geography lecture course, design and deliver lectures, hold weekly office hours, and manage graduate teaching assistants.
- GEOG 131: Weather, Climate, and Climate Change (1 semester)

2023-2025 Graduate Teaching Assistant, Department of Geography & Sustainability, University of Tennessee. Instructor of record for physical geography lab sections, grade assignments, hold weekly office hours, and deliver occasional guest lectures.
- GEOG 131: Weather, Climate, and Climate Change (3 semesters)
- GEOG 204: Understanding Climate Change (1 semester)
- GEOG 439: Plants, People, and Climate in North America (1 semester)

2024 Mentor Graduate Teaching Assistant, Department of Geography and Sustainability, University of Tennessee. Assist with weekly lab instructor meetings and offer support to new lab instructors.

RESEARCH AND FIELD EXPERIENCE

- 2024-2025 Collected and processed soil cores for the project “Histories of Vegetation Communities and Land Use in Relation to Paleofires in Eastern National Forests,” funded by the Joint Fire Science Program, in Shawnee State Forest (OH), Monongahela National Forest (WV), Hoosier National Forest (IN), and Shawnee National Forest (IL) and supervised nine undergraduate research assistants; Department of Geography & Sustainability, University of Tennessee.
- 2023 Collected three sediment cores for the project “Fire and Vegetation History from Wetland Sediments at Arnold Air Force Base, Coffee County, Tennessee, U.S.A.”; Department of Geography & Sustainability, University of Tennessee.
- Assisted with live sample collection and release of salamanders in Great Smoky Mountains National Park. Tissue samples were collected from organisms to test for ranaviruses; School of Natural Resources, University of Tennessee Institute of Agriculture.
- 2022-2023 Worked within the Analysis of Codon Data (AnaCoDa) framework in R to modify plotting routines of amino acids dependent on codon. Also held a paid summer research position developing test cases for the AnaCoDa package; Department of Ecology and Evolutionary Biology, University of Tennessee.

UNREFEREED PUBLICATIONS AND REPORTS

- 2025 **Elizabeth G. Barnes.** “Long-Term Fire and Vegetation History from Soil Charcoal in Boone Creek Barrens, Indiana, U.S.A.” M.S. Thesis, University of Tennessee.
- 2024 Sally P. Horn and **Elizabeth G. Barnes.** Report on research on fire and vegetation history from upland soil cores in Hoosier National Forest. U.S. Department of Agriculture, Forest Service, Northern Research Station.

PROFESSIONAL PRESENTATIONS

- 2025 **Elizabeth G. Barnes**, Sally P. Horn, Stephanie K. Drumheller-Horton, and Christopher Noto. “Investigating Late Cretaceous Charcoal at the Arlington Archosaur Site, Texas, U.S.A.” Annual meeting of the Southeastern Division of the American Association of Geographers, 23-24 November 2025, Lexington, Kentucky (forthcoming).

Elizabeth G. Barnes, Sally P. Horn, Matthew B. Dickinson, and Michael C. Stambaugh. "A Soil Charcoal Record of Fire History from Boone Creek Barrens, Indiana." Annual meeting of the American Association of Geographers, 24-28 March 2025, Detroit, Michigan.

Elizabeth G. Barnes, Sally P. Horn, Matthew B. Dickinson, and Michael C. Stambaugh. "A Soil Charcoal Record of Fire History from Boone Creek Barrens, Indiana." 5th Biennial Geography Symposium, 20-21 February 2025, Knoxville, Tennessee.

- 2024 Matthew B. Dickinson, Michael C. Stambaugh, Benjamin M. Rau, Ryan R. Bart, Alison Damick, Sally P. Horn, Kandace D. Hollenbach, and **Elizabeth G. Barnes**. "Mapping Past, Present, and Future Hydro-Ecology, Fire, and Vegetation for Oak Ecosystem Restoration." Southern Tier Oak Restoration Initiative Stakeholders Meeting, 6 November 2024. Virtual meeting.

FELLOWSHIPS AND AWARDS

- 2025 J. Wallace and Katie Dean Endowed Graduate Fellowship, *University of Tennessee* (\$10,000)
Graduate School Fellowship, *University of Tennessee* (\$2,000)
Graduate Student Senate Travel Award, *University of Tennessee* (\$850)
Stewart K. McCroskey Memorial Fund, *Department of Geography & Sustainability* (\$500)
Robert G. Long Outstanding Graduate Student Award, *Department of Geography & Sustainability*
Best Student Paper Award, *Biogeography Specialty Group of the AAG*
Best Science Communicator Award, *University of Tennessee 5th Biennial Geography Symposium*

- 2022 Undergraduate Study Abroad Scholarship, *University of Tennessee Center for Global Engagement* (\$750)

PROFESSIONAL DEVELOPMENT

- 2024 Grant Proposal Writing course, *Department of Geography & Sustainability, University of Tennessee*
Facilitating Undergraduate Evidence-Based Learning course, *Center for the Integration of Research, Teaching, and Learning (CIRTL)*

- 2023 Teaching College Geography course, *Department of Geography & Sustainability, University of Tennessee*

COMMUNITY OUTREACH AND SERVICE

- 2025 Judge, Researched Persuasive Writing and Speaking competitive event, *HOSA-Future Health Professionals Tennessee State Leadership Conference*

2024	Darwin Day education event volunteer, <i>McClung Museum of Natural History & Culture, University of Tennessee</i> Geography Department student presenter to middle school students participating in the <i>Southern Appalachian Science and Engineering Fair</i> “Can You Dig It?” Day education event Geography Co-chair, <i>McClung Museum of Natural History & Culture, University of Tennessee</i>
2023-2024	“Can You Dig It?” Day education event volunteer, <i>McClung Museum of Natural History & Culture, University of Tennessee</i>
2023	“College Preparation and Experience” interview participant for freshman-level career exploration course, <i>Lincoln County High School, Tennessee</i> Designing and creation of tree-ring museum display and 5 th grade lesson plan, <i>Greenback Historical Society and Greenback Public School, Tennessee</i>

SERVICE TO THE DISCIPLINE

2025-present	Student Representative, Paleoenvironmental Change Specialty Group
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DEPARTMENTAL SERVICE

2025-present	Member, Graduate Faculty Awards Committee
2024-present	Co-chair, GeograFika Coffee Hour
2023-present	Member, Supporting Women and Non-Binary Geographers
2024-2025	Member, Graduate Merchandise Committee
2023-2024	Graduate Representative, Colloquia Series

PROFESSIONAL SOCIETIES

American Association of Geographers (AAG)
Graduate Student Affinity Group
Biogeography Specialty Group
Paleoenvironmental Change Specialty Group
National Merit Scholarship Corporation Scholar Community (NMSC)
Southeastern Division of the American Association of Geographers (SEDAAG)

CERTIFICATIONS

Associate-Level Teaching Certificate, Center for the Integration of Research, Teaching, and Learning (CIRTL)
Hazardous Waste and Chemical Spills Training, University of Tennessee
Open Water Scuba Diver, National Association of Underwater Instructors (NAUI)

OTHER WORK EXPERIENCE

2019-2023	Lifeguard/Pool Manager/Safety Coordinator, Allan Jones Intercollegiate Aquatic Center, University of Tennessee Athletics
2019, 2021	Lifeguard/Dive Tender, U.S. Space & Rocket Center, Huntsville, Alabama

2018-2019 ACT Math Tutor, Fayetteville, Tennessee