

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, Quaternary environments, biogeography, fire history and ecology

TEACHING EXPERIENCE

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| 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. <ul style="list-style-type: none">- GEOG 131: Weather, Climate, and Climate Change (2 semesters)- GEOG 200: Environment Issues in National Parks (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. <ul style="list-style-type: none">- 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. |

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

- 2026 Sally P. Horn, **Elizabeth G. Barnes**, Christopher A. Underwood, Michael C. Stambaugh, Matthew B. Dickinson, Kandace D. Hollenbach, and Alison Damick. “Using Soil Charcoal to Extend the Tree-Ring Record of Fire in Eastern U.S.” Paper and poster presentation. 8th Fire in Eastern Oaks Conference, 2-4 June 2026, Bloomington, Indiana.
- Elizabeth G. Barnes**, Sally P. Horn, Christopher A. Underwood, Matthew B. Dickinson, and Michael C. Stambaugh. “Evidence of Late Holocene Hardwoods and Fires in an Indiana Woodland.” Paper presentation. Annual meeting of the American Association of Geographers, 21-24 March 2026, San Francisco, California.
- Ian T. von Weisenstein, Sally P. Horn, **Elizabeth G. Barnes**, and Christopher A. Underwood. “Fire History and Past Vegetation from Soil Charcoal in Tennessee’s Ridge and Valley Province.” Paper presentation. Annual meeting of the American Association of Geographers, 21-24 March 2026, San Francisco, California.
- 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.” Poster. Annual meeting of the Southeastern Division of the American Association of Geographers, 23-24 November 2025, Lexington, Kentucky.
- 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.” Paper presentation. 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.” Paper presentation. 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." Paper presentation. Southern Tier Oak Restoration Initiative Stakeholders Meeting, 6 November 2024. Virtual meeting.

GRANTS AND FELLOWSHIPS

- 2026 Student Research Award, *AASP-The Palynological Society* (\$3000)
 Graduate School Fellowship, *University of Tennessee* (\$2000)
 Student Research Grant, *Biogeography Specialty Group of the AAG* (\$750)
 Graduate Student Senate Travel Award, *University of Tennessee* (\$700)
 Chimborazo Student Research Grant, *Mountain Geography Specialty Group of the AAG* (\$500)
 Stewart K. McCroksey Memorial Fund, *Department of Geography & Sustainability* (\$500)
- 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)

HONORS AND AWARDS

- 2026 Outstanding Graduate Teaching Associate Award, *Department of Geography & Sustainability*
 Award of Excellence in Student Leadership, *Department of Geography & Sustainability*
- 2025 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*.

RESEARCH AND FIELD EXPERIENCE

- 2026 PaleoCAMP (Paleoclimate Training in Climate, Archives, Models, and Proxies; *Sierra Nevada Aquatic Research Laboratory, Mammoth Lakes, California*)
- 2024–2026 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.*

COMMUNITY OUTREACH AND SERVICE

- 2025–2026 Judge, Researched Persuasive Writing and Speaking competitive event, *HOSA-Future Health Professionals Tennessee State Leadership Conference*
- 2023–2025 “Can You Dig It?” Day education event volunteer, *McClung Museum of Natural History & Culture, University of Tennessee*
- 2024 Darwin Day education event volunteer, *McClung Museum of Natural History & Culture, University of Tennessee*
“Can You Dig It?” Day education event Geography Co-chair, *McClung Museum of Natural History & Culture, University of Tennessee*

2023 “College Preparation and Experience” interview participant for freshman-level career exploration course, *Lincoln County High School, Tennessee*
 Designing and creation of tree-ring museum display and 5th grade lesson plan, *Greenback Historical Society and Greenback Public School, Tennessee*

SERVICE TO THE DISCIPLINE

2026–present Newsletter Editor, Biogeography Specialty Group of the AAG
 2025–2026 Student Representative, Paleoenvironmental Change Specialty Group of the AAG

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
 Mountain Geography Specialty Group
 Paleoenvironmental Change Specialty Group
 AASP – The Palynological Society (AASP-TPS)
 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)