Dr. Elena Robakiewicz, Ph.D.

Geographiedidaktik, Universität Köln erobakie@uni-koeln.de

Education

2023 **Ph.D., Earth Sciences**
University of Connecticut, Storrs, CT & Eberhard Karls University of Tübingen, Tübingen, Germany
Advisors: Dr. Lisa Park Boush & Dr. Annett Junginger

2019 **M.S., Geosciences**
University of Connecticut, Storrs, CT
Advisor: Dr. Lisa Park Boush

2017 **Fulbright Research Fellow, Micropaleontology**
Eberhard Karls University of Tübingen, Tübingen, Germany
Advisor: Dr. Annett Junginger

2016 **B.A., Geology**
Oberlin College, Oberlin, OH
Advisor: Dr. Karla Hubbard

Research Experience

2023 – Present **HESCOR Post Doctoral Research Fellow in Paleoenvironment**
- Currently organizing a database for the HESCOR (Human & Earth System Coupled Research) to bring together paleoenvironmental and cultural data.

2023 – Present **Teach@Tübingen Fellow – Tephra Correlation across the Suguta Valley**
- Currently analyzing and correlating tephras across the Suguta Valley in order to constrain stratigraphic ages for paleoenvironmental reconstructions across the Early/Middle Pleistocene Transition.

2017 – 2023 **Doctoral Dissertation Research**
- Cored, collected, prepared, and analyzed diatoms and geochemical data from various research sites throughout Africa.

Summer 2021 **Trends, Rhythms, and Events in the Earth's Climate System Participant**
- Attended, participated in, and completed an online 6-week long short course on statistical analyses and climate variability with international teachers and students.
- Completed a scientific outreach blogpost project, linked here.

2019 & 2022 **Research Assistant, Leba Cave, Angola**
- Excavated ceramics, stone lithics, and bone fragments from Leba Cave in Angola on Daniela deMatos's team
- Collected water and diatom samples from neighboring bodies of water.
- Collected short cores from local bodies of water.

2017 & 2018 **Research Assistant, Sibudu, Africa**

- Sorted and organized stone lithics and bone fragments from the Sibudu Rock Shelter in South Africa under the guidance of Dr. Nicholas Conard.

2016 – 2017 **Fulbright Research Scholarship**

- Prepared and analyzed diatom slides from Lake Nakuru in Kenya to reconstruct climate at Eberhard Karls University of Tübingen under the guidance of Dr. Annett Junginger.

2015 – 2016 **Keck Research Assistant**

- Collected samples from Pliocene Antarctic cores at Texas A&M.
- Prepared and counted diatom slides.
- Analyzed the preferred habitats of diatoms to reconstruct Antarctic Sea Surface Temperatures in conjunction with other methods analyzed by other students.

PUBLICATIONS

Robakiewicz, E., Bergner, A., Rosca, C., Kübler, S., Schöttle, V., Mingram, J., Trauth, M. H., Junginger, A. **Draft in Hand**. "Hydroclimate Cycles over 35,000 years as Lake Nakuru, Kenya."

Robakiewicz, E., Owen, R.B., Rosca, C., Deino, A., Garcin, Y., Trauth, M. H., Kübler, S., Junginger, A. 2023. "Variable Climate at Paleolake Suguta, Kenya throughout the Early Middle-Pleistocene Transition." *Palaeogeography, Palaeoclimatology, Palaeoecology* 628. 10.1016/j.palaeo.2023.111758

De Matos, D., Nora, D., Francisco R., Fernandes, J., Sahando Neto, M., **Robakiewicz, E.** 2023. "Survey and explorations of the prehistoric sites at the highlands of Southwest Angola" *Journal of Paleolithic Archaeology* 6 (1). 10.1007/s41982-023-00152-0

Robakiewicz, E., de Matos, D., Stone, J.R., Junginger, A. 2021. "Hydrochemistry and Diatom Assemblages on the Humpata Plateau, Southwestern Angola" *Geosciences* 11, 359. https://doi.org/10.3390/geosciences11090359

Matos, D., Francisco, R., Fernandes, J., **Robakiewicz, E.**, Barros, B. 2021. "A Paisagem cársica Do Sudoeste De Angola Primeira Abordagem Ao património subterrâneo Da Formação Leba" *Revista Angolana de Geociências* 2 (1):127-43. http://www.cicga-uan.co.ao/revista/index.php/RAG/article/view/24.

PRESENTATIONS

(16) **Robakiewicz, E.** "Paleolimnology: Using Lake Sediments to Understand Modern and Past Environments across Africa," ASHE Colloquium, 6 December 2023. Oral Presentation.

(15) Rueckl, K., Cooley, K., Park Boush, L., Cohen, A.S., Blashak, A., **Robakiewicz, E.** & Hall, C. "What makes the alae grow? Assessing morphological response in ostracods to increased stratification and declining benthic oxygen caused by climate change in Lake Tanganyika, East Africa," GSA Conference, 17 October 2023, Pittsburgh, Pennsylvania. Poster Presentation.

(14) **Robakiewicz, E.** "Diatoms as Proxies to Understand Modern & Past Environments and Lake Systems across Africa," USC Paleo/Environmental Seminar Series, 15 Sept. 2023. Virtual Presentation.

(13) **Robakiewicz, E.**, Owen, R.B., Deino, A., Trauth, M.H., & Junginger, A. "Variable Hydroclimate in the Suguta-Turkana Valley, Kenya during the Early Middle-Pleistocene Transition," EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-14071, https://doi.org/10.5194/egusphere-egu23-14071, 2023.

(12) **Robakiewicz, E.**, Junginger, A., Bludau, I., Schöttle, V., Frank, N., Bergner, A., Mingram, J., & Trauth, M.H. "Paleolimnological Changes across the Last Glacial Maximum at Lake Nakuru, Kenya" GSA Conference, 10 October 2022, Denver, Colorado. Poster Presentation.

(11) **Robakiewicz, E.**, Owen, R.B., Deino, A., Trauth, M.H., & Junginger, A. "Early Mid-Pleistocene Lacustrine Dynamics at Paleolake Suguta, Kenya" Geological Society of America Conference, 12 October 2021, Portland, Oregon. Oral Presentation. https://doi.org/10.1130/abs/2021AM-369003

(10) **Robakiewicz, E.**, deMatos, D., Stone, J., & Junginger, S., "Modern Diatom Communities on the Humpata Plateau in Southwestern Angola" Geological Society of America Conference, 29 October 2020, Connect Online. Poster Presentation.

(9) **Robakiewicz, E.**, Beamer, D., Boemmels, J., Brisson, S., Dow, S., & Vanderleest, R." Earth Science Fair at the University of Connecticut: Hands-On Earth Education and Community Outreach" Geological Society of America Conference, 27 October 2020, Connect Online. Poster Presentation.

(8) **Robakiewicz, E.**, Bergner, A., Mingram, J., Trauth, M., & Junginger, A. "25,000 Years of Moisture Variability based on Diatom Conductivity Reconstruction at Lake Nakuru, Central Kenya Rift" Geological Society of America Conference, 25 September 2019, Phoenix, Arizona. Oral Presentation.

(7) **Robakiewicz, E.**, Junginger, A., Bergner, A.G.N., Mingram, J., & Trauth, M.H. "Paleolimnological changes during the past 25,000 years of Lake Nakuru, Kenya" European Geophysical Union Annual Meeting, 10 April 2019, Vienna, Austria. Poster Presentation.

(6) **Robakiewicz, E.**, Bergner, A.G.N., Mingram, J., Trauth, M.H., & Junginger, A. "Paleolimnological changes over 25,000 years at Lake Nakuru (Kenya) using Diatoms as a Proxy" International Diatom Symposium, 26 Jun. 2018, Berlin, Germany.

(5) Junginger, A., **Robakiewicz, E.**, Bergner, A.G.N., Mingram, J., & Trauth, M.H. "Paleolimnological changes during the past 25,000 years of Lake Nakuru, Kenya" IPA-IAL, 18 Jun. 2018, Stockholm, Sweden. Poster Presentation.

(4) **Robakiewicz, E.** "Reconstructing Climate Using Pliocene Diatom Abundance," Oberlin College Senior Symposium, 29 Apr. 2016, Oberlin College, Oberlin, OH. Oral Presentation.

(3) O'Connell, S., Cullen, K., Flores, C., **Robakiewicz, E.**, & Snow Kaufman, Z. "Pliocene Paleoproductivity and Ice Dynamics in the Weddell Sea: ODP Sites 693- 695," Keck Symposium 2016, 22 Apr. 2016, Oberlin College, Oberlin, OH. Group Oral Presentation.

(2) Cullen, K., **Robakiewicz, E.**, & Snow Kaufman, Z. "Pliocene Paleoproductivity and Ice Dynamics in the Weddell Sea: ODP Sites 693-695," GSA Symposium 2015, 3 Nov. 2015, Baltimore, MD. Group Poster Presentation.

(1) **Robakiewicz, E.** "Pliocene Diatom Abundance as Proxy for Temperature in the Weddell Sea: ODP Site 697," Keck Geology Consortium. Spring 2016. Published abstract.

TEACHING EXPERIENCE

2023 – Present **Teach@Tübingen Fellow**

- Currently designing and teaching Master-level elective courses on understanding and collecting paleoenvironmental proxies.

Summer 2023 **Introduction to Evidence-Based Undergraduate STEM Teaching Participant**

- Completed, with distinction, a Massive Open Online Course on STEM education through The Center for the Integration of Research Teaching and Learning.

Teaching Assistantships

Spring 2022 *Earth Materials, University of Connecticut*

- Instructed and graded 20 students in a 3000-level lab.
- Provided study assistance during Office Hours.

Fall 2021 *The Human Epoch: Living in the Anthropocene, University of Connecticut*

- Graded the work for 300 undergraduates in a 1000 level course.
- Guest lectured once.
- Provided study assistance during Office Hours and review sessions.

Fall 2019 *National Parks Unearthed: Geology & Landscapes through Time, UConn*

- Assisted with grading for 80 undergraduates in a 2000 level course.
- Guest lectured twice.
- Provided study assistance during Office Hours and review sessions.

Fall 2019 – Spring 2021

Earth's Dynamic Environment Lecture, University of Connecticut

- Assisted with grading for 400 undergraduates in two introductory level geology lectures.
- Regularly attended lecture to aid discussions and guest lectured once.
- Provided study assistance during Office Hours and review sessions.

Fall 2018 – May Term 2019, Fall 2022

Earth's Dynamic Environment Lab, University of Connecticut

- Instructed and graded 20-25 undergraduates in two introductory level geology labs.
- Provided additional study assistance for students when requested.

Spring 2016 *Introduction to Geology Lab Sections, Oberlin College*

- Guided 20-25 undergraduates in completing lab requirements for an introductory level geology course.

Private Tutoring for Student-Athlete Success Program

Spring 2021 – Present

Private tutoring of UConn student athletes for introductory level geoscience/geography courses. Courses tutored include: STAT1000Q Introduction to Statistics; STAT1100Q Elemental Concepts of Statistics; GSCI1000E The Human Epoch: Living in the Anthropocene; GSCI 1050 Earth's Dynamic Environment; GSCI/GEOG1070 Natural Disasters and Environmental Change; and GSCI/GEOG2310E Creating and Sustaining National Parks.

LEADERSHIP & MENTORING EXPERIENCE

Summer 2023 **Mentorship of Undergraduate Research**

- Mentored University of Connecticut undergraduate, Kurt Rueckl, on his work with Dr. Lisa Park Boush on Lake Tanganyika ostracods, focusing on methods of data collection, organization, and analysis.

Summer 2022

Geoscience Field Workshop at The University of Namibe

- Hosted a workshop with D. de Matos to teach Environmental Engineering students from The University of Namibe common field geological techniques.

Academic Year 2021 – 2022

UConn College of Liberal Arts & Sciences Student Advisory Committee

- Representative for Geosciences

Spring 2021 **Virtual UConn Geosymposium Organizer**

- Organized and created virtual GatherTown and Zoom Webinar space for UConn Geosciences' annual Geosymposium.

Spring 2021 – 2023

Student Representative for GSA Limnogeology Division

- Attended regular Limnogeology Division meetings as a representative for graduate students of the Geological Society of America.

Fall 2020 – Spring 2022

Graduate Student Senator (Geoscience Representative)

- Attended monthly Graduate Student Senate meetings as a representative for the Department of Geosciences.

Fall 2018 – Spring 2019; Fall 2021 – Spring 2022

UConn Geoscience Graduate Group President

- Organized and led weekly meetings among UConn graduate students.
- Participated in faculty meetings.
- Organized outreach and fundraiser events related to the Department of Geosciences.

RESEARCH FUNDING

2023	GSA Continental Scientific Drilling Division Research Grant, **$2,098** **Lake Variability in Africa: Implications for Human Evolution and Modern Societies**
2022	Leakey Foundation, **$5,281** **Early/Mid-Pleistocene environments of Paleolake Suguta, Kenya: Implications for hominin migration and evolution**
2020	Explorer's Club – Mamont Scholar Grant, **$4,978** **Changing Southwest African Climate and Hydrology: Implications for Human Evolution**
2019 – 2020	GSA Charles A. & June R.P. Ross Research Fund, **$2,648** **Middle Pleistocene Paleoclimate Reconstruction in the Suguta Valley, Kenya**

ACADEMIC HONORS & AWARDS

2023	**UConn Earth Sciences Graduate Student Research Award**
2022	**UConn Geosciences Graduate Student Service Award**
2021	**UConn Geosciences Graduate Student Teaching Award**
GSA 2020	**Session Chair for "An Early Involvement of K9–16 Students in Geoscience-Related Research: Potential Tool for Recruitment and Retention,"** GSA Connect, 2020.
2020	**UConn Geosciences Graduate Student Service Award**
2019	**Doctoral Student Travel Fellowship**
2019	**UConn Recognition for Teaching Excellence**
2017 – 2020	**Outstanding Scholar Fellowship**, University of Connecticut
2016 – 2017	**Fulbright Research Scholarship**, Germany
2016 – Present	**Sigma Xi Membership**
2015 – 2016	**Keck Scholarship**, Keck Consortium

PROFESSIONAL AFFILIATIONS

Explorer's Club, European Geophysical Union, Fulbright Association, Sigma Xi, Geological Society of America

PROFESSIONAL SKILLS

Languages: Fluent in Germany and English. Basic Spanish and Portuguese

Programming: Proficient in R, Python, and MATLAB. Basic skills in GIS.

Lab Experience: Core sampling and analyses including correlation using CoreWall. XRF, high-magnitude light microscope, and SEM. Smear slide preparation and analyses.

Field Experience: Paleolithic archaeological excavation techniques. Core collection. In-field hydrological analyses and collection. Diatom collection.