

JOHN E. HINKLE

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EDUCATION

2020 - 2024 **University of North Carolina at Chapel Hill**, Chapel Hill, NC
B.S. in Biology, Minors in Marine Sciences and Data Science
Certificate in Applied Data Science
GPA: 3.84/4.00, *Carolina Research Scholar*

RESEARCH EXPERIENCE

2022 - present **Undergraduate Researcher**, University of North Carolina at Chapel Hill
Advisor: Andreas P. Teske, Ph.D.
Focus: Microbiology of hydrothermal vents and the deep subsurface in the Guaymas Basin

- Extract and quantify DNA from deep-sea sediment samples
- Use sequence analysis tools to assess microbial diversity
- Use Python to analyze geochemical, thermal, and genomic data

2022 **Microbiology NSF REU**, University of Tennessee, Knoxville
Advisor: Karen G. Lloyd, Ph.D.
Project: *Assessing microbial communities in Svalbard permafrost*

- Development of a cell filtration method to allow for improve NanoSIMS analysis of low-biomass permafrost samples
- Extracted and quantified DNA/RNA from permafrost samples

FIELD EXPEDITIONS

2023 **Galapagos Islands**
Professor: Senay Yitbarek

- Five-week upper-level ecology field course (May 14th to June 19th)
- Sampled the soil microbiome of the San Cristobal Highlands
- Assessed competition between ant species
- Recorded field observations of endemic flora and fauna

2022 **Northwest Atlantic Ocean**, R/V Endeavor, EN683
Chief Scientist: Carol Arnosti

- Three-week oceanographic expedition (May 24th to June 12th)
- Collected and processed seawater samples
- Collected data on the microbial degradation of key polysaccharides

PRESENTATIONS

2023

Hinkle JE, Mara P, Beaudoin D, Edgcomb VP, Teske AP. Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). BIOL 461 Guest Lecture. Puerto Ayora, Galapagos Islands. Invited guest lecture.

Hinkle JE, Mara P, Beaudoin D, Geller-McGrath D, Edgcomb VP, Teske AP. Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). Southeastern Biogeochemistry Symposium, Columbia, SC, May 2023. Poster.

Hinkle JE, Mara P, Beaudoin D, Geller-McGrath D, Edgcomb VP, Teske AP. Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). UNC Celebration of Undergraduate Research, Chapel Hill, NC, April 2023. Poster.

Hinkle JE, Mara P, Beaudoin D, Geller-McGrath D, Edgcomb VP, Teske AP. Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). EMES PerkinElmer Student Research Symposium, Chapel Hill, NC, April 2023. Poster. **UG Honorable Mention/2nd Place-\$500 prize.**

Hinkle JE, Mara P, Beaudoin D, Geller-McGrath D, Edgcomb VP, Teske AP. “Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). Annual Meeting of the Association of Southeastern Biologists, Winston-Salem, NC, March 2023. Poster.

2022

Hinkle JE, Mara P, Geller-McGrath D, Edgcomb VP, Teske AP. Molecular survey of methane-cycling archaea in methane-soaked subsurface sediments (Guaymas Basin, Gulf of California). American Society of Microbiology-NC Branch Meeting, Boone, NC, November 2022. Poster.

Hinkle JE, Abuah FA, Lloyd KG. Assessing microbial communities in Svalbard permafrost. UTK Department of Microbiology Annual Symposium, Knoxville, TN, August 2022. Poster.

Hinkle JE, Chambers C, Chanton JP, Ruff SE, Teske AP. Survey of the microbial diversity of hydrothermal vent sediments in the Guaymas Basin (Gulf of California). EMES PerkinElmer Student Research Symposium, Chapel Hill, NC, April 2022. Poster.

RELEVANT POSITIONS

Office of Undergraduate Research Student Ambassador

June 2023 - present

- Organize and lead undergraduate research workshops
- Advise a small group of Accelerated Research Scholars
- Hold a weekly office hours session

Teaching Apprentice in Biology

August 2021 - December 2021 (BIOL 101), August 2022 - December 2022 (BIOL 103)

- Taught effective test-taking and study skills
- Communicated introductory level general and cell biology concepts
- Designed and led exam review sessions
- Held a weekly office hours session
- Attended lecture hours to assist the professor in classroom operations

Carolina COVID-19 Student Service Corps Volunteer

March 2021 - May 2021

- Worked at campus COVID-19 testing sites that helped to ensure a safe and successful Spring 2021 semester

MEMBERSHIP

Association of Southeastern Biologists (since Feb. 2023)

American Society of Microbiology- NC Branch (since Oct. 2022)

Carolina Analytics & Data Science (since Aug. 2022)

UNC Geology Club (since Aug. 2022)

Tri-Beta Biological Honor Society (since Jan. 2022)

UNC Undergraduate Biology Journal Club (since Jan. 2022)

Kenan-Flagler Family Business Club (since Aug. 2021)

CERTIFICATIONS

PADI Advanced Open Water Diver

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NCCER Core Construction