

# JOHN E. HINKLE

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## EDUCATION

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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

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2022 - present **Undergraduate Researcher**, University of North Carolina at Chapel Hill  
Advisor: Andreas P. Teske, Ph.D.  
Thesis: *Complex bacterial diversity of Guaymas Basin hydrothermal sediments investigated by synthetic long read sequencing (LoopSeq)*

- 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

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2023 **Galapagos Islands**  
Professor: Senay Yitbarek, Ph.D.

- Five-week upper-level ecology field course (May 14<sup>th</sup> to June 19<sup>th</sup>)
- 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, Ph.D.

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

## PRESENTATIONS

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### 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/2<sup>nd</sup> 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**

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### **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**

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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**

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PADI Advanced Open Water Diver

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NCCER Core Construction