

EDUCATION

Columbia University – Lamont Doherty Earth Observatory	New York, NY
Ph.D. candidate in Earth & Environmental Sciences (Mathematical Biology) GPA 3.76 <i>NASA Future Investigator in Earth & Space Science & Technology ('19-'21); Kenneth & Linda Ciriacks Graduate Fellowship in Earth & Environmental Sciences ('18-19); Dean's Fellow ('16-'20); Provost's Diversity Fellowship</i>	August 2021
Princeton University	Princeton, NJ
M.A. in Ecology & Evolutionary Biology (Mathematical Biology & Geochemistry) GPA 3.25 <i>Centennial Fellowship in the Natural Sciences and Engineering ('14-'16); Supported by NSF Training Grant in the mathematics of water and water-related issues ('15-'16)</i>	June 2016
Massachusetts Institute of Technology	Cambridge, MA
S.M. in Earth, Atmospheric and Planetary Sciences (Biogeochemistry) GPA 4.3/5.0 <i>Thesis: "Complex Lipids in Microbial Mats & Stromatolites of Hamelin Pool, Shark Bay, AUS"</i>	Sept. 2014
S.B. in Earth, Atmospheric and Planetary Sciences (Geochemistry/Geology) GPA 4.3/5.0 <i>Ronald E. McNair Scholarship Fund ('13-'14); SanDisk Scholarship ('12-'13); Semester ('12) Sedimentary Geology at Universidad Complutense de Madrid GPA 7.9/10 ("Remarkable")</i>	June 2014

SELECTED PUBLICATIONS & PRESENTATIONS

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- Myers, E. M.** & Juhl A. R. "Particle association of *Enterococcus* sp. increases growth rates and simulated persistence in water columns of varying light attenuation and turbulent diffusivity." (submitted to *Water Research* 2020)
- Myers E.**, Juhl, AR. (2019, February) *Comparison of the effect of particle association on the persistence of exogenous fecal indicator bacteria and sewage-derived pathogens. Presented at* ASLO Aquatic Sciences Meeting, San Juan, PR.
- Arora-Williams, K., Olesen, S. W., Scandell, B. P., Delwiche, K., Spencer, S., **Myers, E. M.**, Abraham, S., Sookal, A., Preheim, S. P. "Dynamics of microbial populations mediating biogeochemical cycling in a freshwater lake." *Microbiome* 6.1 (2018): 165.
- Myers E.**, Juhl, A. (2018, June). *Quantifying the effect of particle association on the persistence and transport of exogenous fecal indicator bacteria. Presented at* Association for the Sciences of Limnology & Oceanography, Victoria, BC.
- Myers, Elise M.** *Complex Lipids in Microbial Mats and Stromatolites of Hamelin Pool, Shark Bay, Australia.* Thesis. Massachusetts Institute of Technology, 2014. Cambridge: MIT Technology Licensing Office, 2014.
- Myers, E.**, Juhl, A., Levin, S. (2017, September). *Modeling the fate of particle-associated fecal indicator bacteria and pathogens in the Hudson River Estuary. Presented at* Coastal Estuarine Research Federation, Providence, RI.
- Myers, E.**, Schubotz, F., Matys, E., Summons, R. (2015, December). *Complex Lipids in Microbial Mats and Stromatolites of Hamelin Pool, Shark Bay, Australia. Presented at* American Geophysical Union, San Francisco, CA.
- Myers, E.** (2013, August). *PERF Project Analysis: In-Situ Chemical Oxidation. Presented at* Technical Team Meeting for Chevron Environmental Technology Company's Site Assessment and Remediation Team, San Ramon, CA.
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SELECTED WORK EXPERIENCE

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- Modeling Microbial Persistence in the Hudson River | Aquatic Microbiology Lab ('16-present); NYC, NY**
Use in situ measurements, experimental manipulations, water-column mathematical dynamics of microbes, and satellite data to model fate and transport of particle-associated pathogens
- Course Designer & Instructor Field Geology in Peru ('18-'19); NYC, NY**

Designed and led a graduate level course with a 12-day field component; managed a \$14,000 budget
Dynamic Models of Microbial Interactions | Levin Laboratory ('15-'17); Princeton, NJ

Created mathematical models of mutualistic/commensal microbial interactions

Environmental Stewardship | Chevron Environmental Management Company ('14); San Ramon, CA

Rewrote Standard Operating Procedures for internal Greenhouse Gas Emissions reporting; served on a team to develop a major capital project on conservation and mitigation banking

Hydrogeology Consultant | Chevron Environmental Technology Company ('13); San Ramon, CA

Analyzed the efficacy of in-situ chemical oxidation as a remediation technology in different geologic environments; mapped connections of internal and external remediation organizations

Biogeochemical Niche Research | MIT Parsons/Alm Laboratory ('12-'13); Cambridge, MA

Collected and analyzed lake bacterial community samples; extracted DNA; constructed PCR library

Natural Disaster Logistics & Response | MIT Humanitarian Response Lab ('13); Santiago, Chile

Compiled Twitter/Facebook data and interviewed humanitarian organizations directors to detail needed changes in disaster relief logistics following the 2007 earthquake and tsunami in Chile

Environmental Toxicology | Caribbean Environmental Health Institute ('12); Castries, St. Lucia

Conducted audits and waterborne fecal coliform tests for various business types; created standard environmental guidelines in 15 Caribbean nation states; wrote grants

SELECTED MENTORING/TEACHING EXPERIENCE

Senior Thesis Advisor | Student at Barnard College Class of 2019

Graduate Level Teaching Assistant (2011-2019)

Columbia: Biological Oceanography (x2), Science for Sustainable Development; *Princeton*: Animal Behavior; *MIT*: Principles of Chemistry (x2), Biology I

Instructor & Course Designer: Summer Research Program | Columbia ('18 & '19)

Research Advisor | National Science Foundation Research Experience for Undergraduates ('18 & '19)

Head Chemistry Facilitator & Course Designer | MIT Office of Minority Education ('11 - '12)

SELECTED LEADERSHIP EXPERIENCE

Columbia Students of Color Alliance | Co-Chair '18-'20 | **Communications Director** '17-'18

Represent and advocate for students of color to Columbia administration and other organizations; co-lead a 10-person team; manage a \$27,000 budget; coordinate events; maintain website & social media accounts

Lamont Colloquium Steering Committee | '17-'19

Princeton Latino Graduate Student Association | **Campus Community Outreach Chair** '15-'16

Princeton Ecology & Evo. Biology Dept. | **Professional Development Workshop Coordinator** '14-'16

SKILLS

Technical Software: R, Python, MATLAB, SeaDas, ACOLITE, NIST 11 Mass Spectral Library, Microsoft Office, Adobe Illustrator, Inkscape

Laboratory Skills in Microbiology, Molecular Biology, Imaging (for Biology), and Geochemistry

Languages: English (fluent); Spanish (advanced); Portuguese (conversational)