

ELISE M. MYERS

EDUCATION

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| Columbia University – Lamont Doherty Earth Observatory | New York, NY |
| Ph.D. student in Earth and Environmental Sciences (Oceanography & Microbial Ecology) | June 2020 |
| <i>Designated Dean's Fellow</i> | 2016 – 2020 |
| <i>Supported by Provost's Diversity Fellowship</i> | 2016 – 2017 |
| Princeton University | Princeton, NJ |
| M.A. student in Ecology and Evolutionary Biology (Mathematical Biology & Geochemistry) | June 2016 |
| <i>Supported by Centennial Fellowship in the Natural Sciences and Engineering</i> | 2014 – 2016 |
| <i>Supported by NSF Training Grant in the mathematics of water and water-related issues</i> | 2015 – 2016 |
| Massachusetts Institute of Technology | Cambridge, MA |
| S.M. in Earth, Atmospheric and Planetary Sciences (Biogeochemistry) | Sept. 2014 |
| <i>Thesis: "Complex Lipids in Microbial Mats and Stromatolites of Hamelin Pool, Shark Bay, AUS"</i> | |
| S.B. in Earth, Atmospheric and Planetary Sciences (Geochemistry/Geology) GPA 4.3/5.0 | June 2014 |
| <i>Supported by Ronald E. McNair (1977) Scholarship Fund</i> | 2013 – 2014 |
| <i>Supported by SanDisk Scholarship Foundation</i> | 2013 – 2013 |
| <i>Semester of Sedimentary Geology at Universidad Complutense de Madrid GPA 7.9/10 ("Remarkable")</i> | Jan. '12 – June '12 |

RESEARCH/WORK EXPERIENCE

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| Sediments and Microbial Persistence in the Hudson River Juhl Laboratory | New York, NY |
| <ul style="list-style-type: none">Use in situ measurements, experimental manipulations, mathematical dynamics of microbes, and fluid dynamic models to determine how microbes aggregate and persist on particlesCreate a calibration for satellite data of sediment/particle load in water bodies | Sept. '16 – present |
| Dynamic Models of Microbial Interactions Independent/Levin Laboratory | Princeton, NJ |
| <ul style="list-style-type: none">Create mathematical models of mutualistic/commensal microbial interactionsIncrease model scale and incorporate physical stability to predict community formation | Sept. '15 – present |
| Terrestrial Microbial Community Variation Pringle & Tarnita Laboratories | Princeton, NJ |
| <ul style="list-style-type: none">Collected and analyzed soil samples from MPala Research Station for carbon and nitrogenSurveyed and analyzed vegetation in various herbivore exclosure plots via transects | Nov. '14 – June '15 |
| Long Term Fate of the Land Carbon Sink Hedin & Medgivy Laboratories | Princeton, NJ |
| <ul style="list-style-type: none">Modeled the long-term fate of the land carbon sink based on the dynamics of individualsIncorporated a disturbance regime to predict the implications of human influence | Sept. '14 – June '15 |
| Environmental Stewardship Chevron Environmental Management Company | San Ramon, CA |
| <ul style="list-style-type: none">Rewrote Standard Operating Procedures for internal Greenhouse Gas Emissions reportingServed on a team to develop a major capital project on conservation and mitigation banking | June '14 – Aug. '14 |
| Intact Polar Lipids in Microbial Mats Thesis MIT Summons Laboratory | Cambridge, MA |
| <ul style="list-style-type: none">Extracted and analyzed a variety of lipid biomarkers via gas and liquid chromatography mass spectrometry | Sept. '13 – Aug. '14 |
| Hydrogeology Consultant Chevron Environmental Technology Company | San Ramon, CA |
| <ul style="list-style-type: none">Analyzed the efficacy of in-situ chemical oxidation as a remediation technology in different geologic environments (ex. varying lithology and subsurface gradients)Mapped connections between internal and external remediation advocacy organizations | June '13 – Aug. '13 |
| Biogeochemical Niche Research MIT Parsons/Alm Laboratory | Cambridge, MA |
| <ul style="list-style-type: none">Collected and analyzed stratified lake bacterial community samplesRan DNA extraction, worked on PCR library construction, and ran iron assays | Sept. '12 – June '13 |
| Natural Disaster Logistics & Response MIT Humanitarian Response Lab | Santiago, Chile & Cambridge, MA |
| <ul style="list-style-type: none">Compiled Twitter/Facebook data and interviews with humanitarian organizations directors to see changes in disaster relief logistics following the 2007 earthquake and tsunami in Chile | Jan. '13 – June '13 |

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| Environmental Toxicology & Wastewater Caribbean Environmental Health Institute | Castries, St Lucia |
| <ul style="list-style-type: none"> • Conducted audits and waterborne fecal coliform tests for various business types • Created standard environmental guidelines in 15 Caribbean nation states | June '12 – Aug. '12 |
| Geophysics for Locating Aquifers MIT Earth Resources Laboratory | Castries, St Lucia |
| <ul style="list-style-type: none"> • Used sounding, soil resistivity, self-polarization of soils and local geologic features to locate the best places for aquifer drilling | Jan. '12 |
| Tropical Biodiversity and Resource Conservation Jatun Sacha Research Station | San Cristobal Island, Ecuador |
| <ul style="list-style-type: none"> • Aided germination, managed and distributed endemic and native plants from the nursery • Aided in systematic eradication of invasive species | June '11 – Aug '11 |

TEACHING EXPERIENCE

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| Teaching Assistant: Animal Behavior Princeton Dept. Ecology & Evolutionary Biology | Princeton, NJ |
| <ul style="list-style-type: none"> • Taught three, one-hour precepts per week; graded assignments; and hosted reviews | Jan. '15 – May '15 |
| Teaching Assistant: Principles of Chemistry MIT Experimental Study Group | Cambridge, MA |
| <ul style="list-style-type: none"> • Taught two, one-hour recitations per week; hosted reviews, office hours, and problem solving sessions; graded problem sets and exams; and proctored exams | Sept. '11 – June '13 |
| Seminar XL Head Chemistry Facilitator MIT Office of Minority Education | Cambridge, MA |
| <ul style="list-style-type: none"> • Designed a semester-long curriculum for a team of five facilitators of Freshman Chemistry • Taught two, 90-minute recitation/problem-solving sessions per week to six freshmen | Sept. '11 – Dec. '12 |

LEADERSHIP

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| Princeton Latino Graduate Student Association Campus Community Outreach Chair '15-'16 |
| <ul style="list-style-type: none"> • coordinated events with other underrepresented minority campus groups to foster a unified community • represented LGSA at student government and administrative meetings |
| Theoretical Ecology Lab Tea Coordinator Fall '15 |
| <ul style="list-style-type: none"> • coordinated presenters, publicized, and managed the website for weekly theoretical ecology talks |
| Princeton Ecology & Evo. Biology Dept. Professional Development Workshop Coordinator '14-'16 |
| <ul style="list-style-type: none"> • coordinated two series of workshops: 1) connecting students to campus-based career service resources and working on how to establish a personal brand; 2) sessions with alumni in various academic and non-academic jobs |
| MIT Presidential Advisory Cabinet '13-'14 |
| <ul style="list-style-type: none"> • Served as one of four undergraduate advisers to MIT's president, Rafael Reif |
| MIT MedLinks President '13-'14 Treasurer & Training Coordinator '11-'13 |
| <ul style="list-style-type: none"> • Coordinated all aspects of a program of 140 student health and wellness liaisons for MIT Medical • Met with MIT administrators; served on various panels to represent the needs of MIT students; coordinated multi-round selection of candidates; conducted training for 65 new members each year |
| MIT Office of Engineering Outreach Program Middle School Mentor '11-'13 |

SKILLS

Technical Software

MATLAB, Python, Mathematica, NIST 11 Mass Spectral Library, Microsoft Office, Avis for Broadcasting News Systems

Laboratory Skills

Liquid & Gas Chromatography Mass Spectrometry, High-Performance Liquid Chromatography

Column Packing, sonicator, derivatization, rotary evaporator

DNA Extraction, PCR library creation, iron assay, autoclave

Gel Electrophoresis, Flexirubin Testing, centrifuge, bacterial plating, live cell staining, microscopy

Languages

Fluent: English, Spanish | Conversational: Portuguese