Alyssa Daigle

MASTER'S STUDENT, MICROBIOLOGY

Department of Molecular, Cellular, and Biomedical Sciences; University of New Hampshire

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Education

University of New Hampshire   *Durham, New Hampshire*

MASTER OF SCIENCE, MICROBIOLOGY   *Expected 2025*

- GPA: 4.00

University of New Hampshire   *Durham, New Hampshire*

BACHELOR OF SCIENCE, ENVIRONMENTAL CONSERVATION AND SUSTAINABILITY   *2019 - 2023*

- Summa cum Laude

Research Experience

O'Brien Lab   *University of New Hampshire*

MASTER'S STUDENT - ADVISOR: DR. ANNA O'BRIEN   *2023 - Present*

- Developing high-throughput microcosm experiments to assess role of duckweed genotypes, co-occurring species, and microbiomes in green manure quality
- Investigating human health risk associated with occurrence of toxic cyanobacteria in green manures and fertilized crops
- Preparing and maintaining cultures of aquatic plants, microbes, and toxic cyanobacteria

Lakes Lay Monitoring Program   *University of New Hampshire*

LABORATORY/FIELD TECHNICIAN   *2022 - 2023*

- Sampled New Hampshire lakes and ponds at varying thermal depths to assess overall system health
- Performed nutrient analyses (phosphorus and nitrogen) on water samples using oxidative digestions and spectrophotometry
- Analyzed chemical and physical properties of water samples using titrations, spectrophotometry, and benchtop probes
- Managed large databases of historical limnological data to write annual highlight reports

Ecotoxicology Lab   *University of New Hampshire*

INDEPENDENT STUDY - ADVISORS: DR. JAMES HANEY AND DR. AMANDA MCQUAID   *2021*

- Analyzed aerosolized cyanobacterial picgments (chlorophyll, phycocyanin, and phycoerythrin) under varying temperature differentials using fluorometry to assess the human healh risks of aerosolized cyanotoxins in lakes
- Presented relevant findings/questions to Ecotoxicology Research Lab and poster presentation at UNH Undergraduate Research Conference

Presentations

Daigle, A., Dennehy, K., Haney, J., & McQuaid, A. (2022, April). Potential Drivers of Aerosolized Lake Toxins Impacting Public Health. Poster presented at Undergraduate Research Conference, University of New Hampshire.

Teaching Experience

Graduate Teaching Assistant - BMS 407: Germs 101   *Durham, New Hampshire*

UNIVERSITY OF NEW HAMPSHIRE   *08/2023 - 12/2023*

- Moderated Zoom lectures, graded students, monitored class email account, managed course Canvas page

Awards

Dean's Scholarship   *$2,500/year*

UNIVERSITY OF NEW HAMPSHIRE   *2019 - 2023*

Relevant Skills

Computational: R, ArcGIS Pro, Microsoft Suite

Laboratory: Microbial isolation and culturing; aquatic plant culturing; microscopy; chemical nutrient analyses;

spectrophotometry; fluorometry; turbidometry; benchtop probe analysis; making reagents, media, and other solutions

Field: YSI multi-probe and flow systems measurement, thermal and point lake sampling

Other: Trained in Chemical Environmental Management System (CEMS), Adhered to EPA approved Quality Assurance Project Plans (QAPPs) at LLMP