

Lucille T. McGuire

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EDUCATION

2019-2023 **B.S. Biology** | University of Wisconsin-Madison
B.S. Environmental Studies | University of Wisconsin-Madison
Certificate Biology Core Curriculum | University of Wisconsin-Madison

RESEARCH EXPERIENCE

2023-Present **Post-Graduate Research Intern, Turner Lab** | University of Wisconsin-Madison
Camp Monaco Prize Project: Anticipating and Envisioning Future Landscapes of Greater Yellowstone
Advisor: Dr. Monica Turner
NSF Nitrogen Project: Nitrogen recovery in postfire lodgepole pine forests: Cryptic sources, uncertain futures
Advisor: Dr. Monica Turner

2022 **Field Technician, Turner Lab** | University of Wisconsin-Madison
NSF Nitrogen Project: Nitrogen recovery in postfire lodgepole pine forests: Cryptic sources, uncertain futures
Advisor: Dr. Monica Turner

2022 **Biology Core Curriculum Independent Research Project:** Imsande, McGuire, & Wheeler. 2023. *Student POV: Living and Growing as Scientists - Doing the Process of Science During a Global Pandemic*. American Biology Teacher 85(9). <https://doi.org/10.1525/abt.2023.85.9.488>

2021-2022 **Undergraduate Research Assistant, Renz Lab** | University of Wisconsin-Madison

2021 **Biology Core Curriculum Independent Research Project:** *How does white light with additional green light influence Brassica rapa growth?*

2021 **Undergraduate Research Assistant, Wang Lab** | University of Wisconsin-Madison

2020 **Undergraduate Research Assistant, Wheeler Lab** | University of Wisconsin-Madison

VOLUNTEER EXPERIENCE

2023 **Prescribed Fire Volunteer Crew Member**
Private Lands Conservation, LLC, International Crane Foundation

SKILLS

Field Work **Turner Lab:** Assisted in collection of data from forested plots in the Greater Yellowstone Ecosystem recovering from fire in the form of tree identification and counts, *Pinus contorta* cone serotiny determination, acetylene reduction assay, DBH and basal diameter measurements, and tree age classifications.

Deployed resin bags and collected samples including tree foliage, soil, lichen, moss, and wood. Proficient in setting up plots and transects and using a compass. Conducted visitor surveys in Yellowstone and Grand Teton National Parks to understand utility of developed educational tools about climate change.

Prescribed Fire Crew Member: Implemented prescribed fires throughout Central Wisconsin in a variety of both prairie and wooded units ranging from 0.5 acres to 58 acres. Safely participated in a variety of roles on burns including taking weather measurements, burning breaks, ignition, first water, monitoring, and mop up. Learned ecological benefits of implementing prescribed burns and importance of setting clear burn objectives.

Laboratory Research Turner Lab: Prepared foliage samples from the Greater Yellowstone Area for total carbon and nitrogen analysis on Thermo Flash EA1112 carbon/nitrogen analyzer. Performed inorganic N extractions on resin bags collected in the field.

Renz Lab: Independently collected data in the form of Wisconsin invasive plant identification and dry mass by species. Assisted in field data collection and additional projects as needed, including planting seeds and preparing soil samples for analysis.

Wang Lab: Prepared dried dark red kidney bean (*Phaseolus vulgaris L.*) samples for analysis. Measured mass and percent moisture content of kidney bean samples.

Wheeler Lab: Completed protein isolation, quantification, and Western blot analyses for graduate student research in the Department of Oncology.

Data Management Turner Lab: Compiled and refined data from past lab members and online databases for ongoing projects.

Renz Lab: Completed data entry and analysis tasks from field images. Experience managing large data sets.

Computer Geographic Information Systems (ArcGIS), Microsoft Office (Word, Excel, PowerPoint)

LEADERSHIP EXPERIENCE

2022 Undergraduate Teaching Assistant | Becoming a Scientist: Doing Biology Research
Assist in teaching 20 first-year students the process of completing independent research at a college level and support their transition to the university including presentations regarding finding research opportunities, planning courses, time management, etc.

2022-2023 Biocore Peer Advisor | Biology Core Curriculum, UW-Madison

Present informational sessions to potential Biocore students about the program and serve as a resource for questions about it.

2021-2022 Director of Academic Excellence | Delta Delta Delta Mu Chapter

Manage academic records of over 200 chapter members and lead meetings to discuss resources and areas of growth with individual members when applicable. Provide a positive attitude around academics and plan events to encourage enthusiasm for student learning, build relationships with professors and gain study skills.

WORK EXPERIENCE

2023-Present General Arts Instructor – Irish Dance, Madison School & Community Recreation | Madison, WI

Teach Irish Dance to a range of ages spanning 4 year-olds through 5th grade students with no previous Irish Dance experience. Encourage an exciting, driven, and challenging environment for dancers to grow physically and mentally in the development of new skills.

2022-2023 Sales Associate, Madewell | Madison, WI

Prioritize tasks effectively at peak hours to ensure smooth operations. Maintain an organized storefront and process large volumes of outgoing and incoming shipments. Engage with diverse groups of customers and provide individualized recommendations. Provide a positive shopping experience to guests by offering style and sizing advice with a welcoming and inclusive attitude.

2021 Old Faithful Lodge Cafeteria Front of House, Xanterra | Yellowstone National Park

Maintained customer service interactions during the most-visited season on record, amidst the COVID-19 pandemic. Maintained a sanitized cafeteria and handled transactions. Strong problem-solving skills when interacting with guests and multitasking during staffing shortages.

2020 Sales Associate, J. Crew | Chicago, IL

Welcomed guests and maintained a safe number of guests in store during the height of the COVID-19 pandemic. Ensured a clean and organized storefront and packaged outgoing shipments.

2018 Patient Flow Specialist, Cranial Technologies | Chicago, IL

Welcomed patients and their families and handled check-in, insurance, payment, and scheduling both in-person and over the phone. Sanitized patient rooms regularly. Input patient data and ran reports for clinicians, patients' families, and patient's physicians.

RELEVANT COURSEWORK

Forest Ecology; Decision Methods for Natural Resource Managers; General Ecology; Environmental Biophysics; Introduction to Geographic Information Systems; Prescribed Fire: Ecology and Implementation; Soils and Environmental Chemistry; Climate Change Economics and Policy

CERTIFICATIONS

National Wildfire Coordinating Group: S-130, S-190, L-180 (March 2023); RT-130 (October 2023)

HONORS

2022 Biology Core Curriculum Honors Certificate

2019, 2020, 2023 Dean's List
