

ALEXIS O'CALLAHAN

Interdisciplinary Environmental Researcher

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EXPERIENCE

Habitat Quality Research Assistant

University of Arkansas, collaborating with Army Corps of Engineers

August 2023 – Present Fayetteville, AR

- Designed and conducted vegetation surveys
- Mapped the distribution and drivers of ecological community diversity using ArcGIS and RStudio
- Calculated geospatial entropy using Google Earth Engine
- Integrated outdoor recreation data, land cover, and visitor usage data into anthropogenic disturbance indicators

Green Infrastructure and Conservation Team Intern

NYC Parks, Division of Environment and Planning

May 2023 – August 2023 New York, NY

- Identified and surveyed northeastern plants to measure ecological restoration and green infrastructure success across four boroughs
- Developed ArcGIS online map to aid in planning field visits
- Delineated wetlands, practiced using Trimble GPS GNSS receiver. Engaged with the NYC Parks forestry team with field surveys

Yale Environmental Fellow

Yale University, Dr. Dorceta Taylor's JEDSI Lab

May 2023 – August 2023 Remote

- Used QGIS and Google Earth Engine to map and analyze US Census, MODIS, and LANDSAT data

Seasonal Naturalist and Wetland Kayak Guide

NJ Dept of Environmental Protection, Liberty State Park

May 2019 – May 2020 Jersey City, NJ

- Aided in invasive species removals and mapping, seed collecting, planting trees, and running volunteer events.
- Developed and administered environmental education programs for all age groups, ranging from urban tree IDing to birding.

EDUCATION

Ph.D. in Environmental Dynamics

University of Arkansas

Expected July 2026 Fayetteville, AR

Graduate Certificate in G.I.S.

University of Arkansas

July 2026 Fayetteville, AR

Graduate Certificate in Sustainability

University of Arkansas

Jan 2022 – Dec 2023 Fayetteville, AR

B.S. in Biology with Chemistry, Philosophy minors

St. Peter's University

Aug 2015 – May 2019 Jersey City, NJ

RESEARCH

remote sensing landscape ecology
social science co-production
natural resource mgmt

MOST PROUD OF

Yale Environmental Fellow

Undergraduate Mentorship

Community Engagement

SKILLS

RStudio ArcGIS Google Earth Engine
machine learning plant ID python
Adobe Creative Suite

LANGUAGES

English ●●●●●

French ●●●●●

PROJECTS

Immigrant foodways in Jersey City, NJ

- Used RStudio to develop maps comparing patterns of racial and immigration diversity from the US Census with USDA food access data and our field survey data across Jersey City

Review and Synthesis of Diversity Indices in Ecology

- Helping lead project using open access data (avian, beetle, plant counts and LiDAR-derived forest metrics) to compare methods in quantifying biodiversity

Co-production in Science

- Designing surveys and interviewing scientists to develop video tutorials on co-production.

TEACHING

BIOL3861L- General Ecology
BIOL1451L - Principles of Biology