Alexandra Lalor (she/her)

Curriculum Vitae

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	Research Interests	
		Fire ecology, dendrochronology, forest regeneration
	Education	
	Feb 8 th 2021 – Dec 16 th 2022	University of Arizona, Tucson AZ, GPS 4.0 M.S. Natural Resources Studies Thesis: Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest Regeneration across a Landscape Gradient
	Aug 12 th 2013 – May 13 th 2017	University of California, Berkeley CA, GPA 3.8 B.S. Honors Environmental Science Major Thesis: Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore
	May 27 th 2018 – June 24 th 2018	Universidad Autónoma Metropolitana, México Spanish and Mexican Culture, Modern Mexico, Social Movements of Mexico
	July 20 th 2015 – Oct 22 nd 2015	University of Cape Town, South Africa Conservation Science, Urban Studies
	June 21 st 2014 – July 5 th 2014	Monterey Bay California State University, California Channel Islands Wildlands Studies: The California Channel Islands Project, Wildlife Recovery and Reintroduction

Publications (in review)

2023 Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest

Regeneration across a Landscape Gradient

Peer Reviews

2022 **Ecosphere**, 1 publication

Research Projects

Feb 8th 2021 – Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest Dec 16th 2022 Regeneration across a Landscape Gradient

Regeneration across a Landscape Gradient Master's Thesis, University of Arizona

Musici's Thesis, University of Anzona

Jan 19th 2016 – Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore

May 12th 2017 Senior Thesis, University of California Berkeley

Professional Experience

May 9th 2021 – **Grand Canyon National Park**, North Rim AZ Nov 6th 2021 *Assistant Lead Fire Effects Monitor, GS-6*

- Monitoring the effectiveness of prescribed fire treatments using long-term forest plots
- Collecting forest data such as plot photos, tree growth, shrub abundance, plant species composition, fuel loading, and seedling counts
- Plant identification of grasses, forbs, trees, and shrubs
- Wildland firefighting and prescribed burn operations
- Crew leadership and program management

May 10th 2020 – Nov 21st 2020

Grand Canyon National Park, North Rim AZ

Fire Effects Monitor, GS-5

- Collecting forest data such as plot photos, tree growth, shrub abundance, plant species composition, fuel loading, and seedling counts
- Wildland firefighting and prescribed burn operations

Nov 8th 2019 – March 16th 2020

Good Life Ceramics, Santa Cruz CA

Storefront Manager

- Managing storefront operations, private events, and studio membership
- Handling clay projects, kiln operation, mixing glazes, and clay recycling

May 13th 2019 – Oct 24th 2019

North Cascades National Park, Marblemount WA

Fire Effects Monitor and Fire Dispatcher, GS-3

- Collecting forest data such as plot photos, tree growth, shrub abundance, plant species composition, fuel loading, and seedling counts
- Curation of tree cores and verifying fire scars using dendrochronology
- Communications center radio dispatching

Sept 5th 2018 – Dec 19th 2018

Luquillo Long-Term Ecological Research Program, El Yunque Puerto Rico

Tropical Field Research Intern

- Measuring forest characteristics such as canopy photos, fern surveys, litter processing, and coarse wood debris surveys
- Data entry, quality control, and data analysis

May 22nd 2017 – May 18th 2018

US Geological Survey, Santa Fe NM

Dendrochronology Research Intern

- Reconstructing fire history in New Mexico using dendrochronology, fire scars, tree growth response, and cross dating methods to date fire events over the past 900 years
- Assisting in long term tree mortality monitoring, including demography plots, dendroband measurements, vegetation transects, and fire effects forest plots
- Experience with power tools such as chainsaws, belt sanders, and bandsaws

Sept 17th 2016 – May 12th 2017

Student Environmental Resource Center, Berkeley CA

Events Associate

- Managing student events, distributing funds, and coordinating outreach
- Coordinating the Earth Week Planning Committee to build a weeklong program and structure for student events during Earth Week
- Connecting with environmental professionals and hosting career networking events
- Strategic, long-term planning and evaluation of existing and future SERC programs

Jan 20th 2015 – May 12th 2017

Cal Dining Sustainability Team, Berkeley CA

Zero Waste Coordinator

- Working with dining facilities and students to promote food literacy and waste reduction
 organizing recycling challenges, donation programs, and gardening events
- Implementing educational programs, such as food waste audits and designing signage
- Initiating Weigh-Your-Waste events in the dining halls to highlight post-consumer food waste and kitchen waste, including recruiting and organizing volunteers

Sept 15th 2014 – May 14th 2015

Berkeley Student Food Collective, Berkeley CA

Storefront Shift Lead

- Training storefront members in basic store management, such as product organization, labeling, cleaning, and cashiering
- Assisting the manager in tasks such as making orders and pricing products
- Experience handling money and transactions as a cashier

Volunteer Experience

Nov 30th 2020 – March 5th 2021 Walnut Canyon National Monument, Flagstaff AZ

Natural Resources Volunteer, 32 hours/week

- Assisting with Walnut Canyon's large tree protection plan to document large-diameter ponderosa pines for climate change comparison
- Learning of Walnut Canyon's past fire history dendrochronology studies and prescribed burn operations, as well as current prescribed burn management plans

Professional Involvements

August 2022 – December 2022 Natural Resources Graduate Student Organization (NRGSO), Tucson AZ

Representative for Natural Resources Studies

• Elected officer to serve the departmental student organization, providing a forum to share research, promote leadership, and encourage graduate student fellowship

March 2020 -May 2021 Student Environmental Resource Center, Berkeley CA

Alumni Committee Member

• Selected member of the SERC Alumni Committee, tasked with increasing avenues for alumni to engage with SERC programs

January – April '16, '17, '18, '19 Zero Waste Youth USA, San Francisco CA

Committee Member

- Recruiting speakers and volunteers for the Zero Waste Youth Convergence as a part of the planning committee
- Selected participant and speaker for international Zero Waste Youth meeting in Brazil, October 2017

February – April '14, '15, '16, '17 Earth Week Planning Committee, Berkeley CA

Committee Member

- Organizing campus-wide events during Earth Week
- Coordinating with sustainability and environmentally related groups on campus

September 2013 – May 2017 Berkeley Student Food Collective, Berkeley CA

Committee member, cashier, storefront worker, and food prep worker

 Basic store management at a food co-op, including cashiering, restocking products, opening and closing the storefront, cleaning, and organizing shifts

Mentorships

August 2022 – May 2023

Association for Fire Ecology (AFE), Tucson AZ (virtual)

- Selected participant of the AFE Mentoring Futures Program
- Mentor: Blanca Cespedes

August 2022 – December 2022 Natural Resources Graduate Student Organization (NRGSO), Tucson AZ

- Mentor of incoming graduate students in the Natural Resources Department
- Mentees: Stephanie Brennan and Garland Speight

August 2021 – May 2022 Women in Science and Engineering (WISE), Tucson AZ

- Selected participant in the STEM Mentorship Program
- Mentor: Judith Bronstein

Jan 2019 – May 2021 Student Environmental Resource Center, Berkeley CA

- Mentor of undergraduate Berkeley students:
- Mentees: Emma Centeno (Fall 2020 Spring 2021), Mykaela Barnes (Fall 2019 Spring 2020), Peyton White (Fall 2019 Spring 2020), Skye Michel (Spring 2019)

Invited Talks

April 2021 SERC Springside Alumni Chat, virtual

SERC Virtual Earth Week event, zoom presentation, college students

University of California, Berkeley CA. April 22 2021.

Workshops and Presentations

December 2022 Masters Defense Presentation, Tucson AZ

Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest

Regeneration across a Landscape Gradient

December 2022 Roots for Resilience Presentation, Tucson AZ

CyVerse Tools for Reproducible Color Analysis

November 2022 Research Insights in Semiarid Ecosystems (RISE) Symposium, Tucson AZ

Patterns and Mechanisms of Climate and Fire Resilience in Sky Island Forests

April 2022 Arizona Institute for Resilient Environments and Societies (AIRES) Experiential Learning Student

Showcase, Poster Session, Tucson AZ

<u>Parsed & Parched: Bridging Culture and Ecology Through Borderland Waters</u>

April 2022 Climate Resilience and Adaptation Lightning Talks, Tucson AZ

Hotter Droughts: Seedling Responses to Heatwaves and Drought in Post-Fire Recovery

March 2018 Zero Waste Youth USA convergence, San Francisco CA

Lessons Learned from Zero Waste Youth Brazil

March 2018 Northern California Recycling Association Recycling Update Conference, San Francisco CA

Lessons Learned from Zero Waste Youth Brazil

October 2017 Zero Waste Youth International Convergence, Brazil

Zero Waste Youth USA - Florianópolis, Brazil

Food Waste at University of California Berkeley - Joinville, Brazil

May 2017 Honors Environmental Science Thesis Presentation and Poster Session, Berkeley CA

Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore

November 2016 **Powershift Convergence**, Berkeley CA

Deconstructing Zero Waste Privilege

March 2016 Zero Waste Youth USA Convergence, San Francisco CA

Food Waste Reduction at Cal Dining

Professional Development

September 2022 – Foundational Open Science Skills Workshop, Tucson AZ (virtual)

November 2022 CyVerse

 10-week workshop covering the principles and practice of open science, developing data management plans and metadata standards, and using CyVerse infrastructure

December 2021 9th International Fire Ecology and Management Congress, Tucson AZ (virtual)

Association for Fire Ecology

4-day conference including workshops, presentations, and discussion groups

Professional Memberships

Association for Fire Ecology

Fellowships

August 2022 – Roots for Resilience (R4R) (\$7,000), Tucson AZ

• Training and support on open, reproducible science and computational infrastructure to enhance research focused on resiliency in the environment

August 2021 -May 2022

University Climate Change Coalition (UC3) (\$3,500), Tucson AZ

- In collaboration with the Sky Island Alliance, we developed a storymap highlighting threats to culturally and ecologically important water sources along borderland regions
- Parsed & Parched: Bridging Culture and Ecology Through Borderland Waters

Grants

March 2022 Graduate & Professional Student Council (GPSC) Travel Grant (\$2,000), Tucson AZ

2022 North American Dendroecological Fieldweek (NADEF) in Quebec Canada

January 2016 -May 2017

Expanding Zero Waste in the Residence Halls (\$12,000), Berkeley CA

Furnish the residence halls with compost and recycling bins to help reach the campus zero waste goals

January 2015 -June 2016

Bulk Bins at Cal Dining (\$6,000), Berkeley CA

Establish bulk bins in retail locations across UC Berkeley to assist the college in achieving their zero waste goals

Scholarships

2022 - 2023 Alma L. Wilson Memorial Scholarship in Agriculture - Shared (\$1,162), University of Arizona 2022 - 2023Graduate AFAT Scholarship (\$3,000), University of Arizona

Natural Resources Tuition Scholarship (\$2,595), University of Arizona 2022 - 20232021 - 2022 Natural Resources Tuition Scholarship (\$3,026), University of Arizona

2021 - 2022 Hope I. Jones Scholarship (\$812), University of Arizona

Clifford W. Carstens Jr. Scholarship (\$1,020), University of Arizona 2021 - 2022 2021 - 2022Joe K. Fannin Scholarship - Rotates (\$442), University of Arizona HEERF III Grant (\$2,750), University of Arizona 2021

Honors and Awards

2022 Roots for Resilience awardee, University of Arizona

2020, '21 Outstanding Performance Award, Grand Canyon National Park 2016 Spot Award, Cal Dining Sustainability Team, Berkeley CA

2014, '15, '16, '17 Dean's Honors, University of California Berkeley

Languages

Intermediate Spanish (reading, writing, and oral communication)

Red Card Qualifications

FFT2 (Qualified) Wildland Firefighter - National Wildfire Coordinating Group (NWCG)

REAF (Qualified) Fireline Resource Advisor – NWCG

FAL3 (Trainee) Basic Faller - NWCG

FEMO (Trainee) Fire Effects Monitor - NWCG SRT2 (Trainee) Search and Rescue Type 2 - NWCG HECM (Trainee) Helicopter Crew Member - NWCG

Certifications

First Aid CPR AED – American Heart Association

CA Food Handler – American National Standards Institute (ANSI) approved Open Water Scuba – Professional Association of Diving Instructors (PADI)

Skills

R programming

Ceramics experience (kiln operation, glaze mixing, studio management)

Wood working with heavy power tools (chainsaws, bandsaws, hand saws, belt sanders, etc.)

Clean driving record, experienced in automatic and manual drive