

Alexandra Lalor (she/her)

Curriculum Vitae

5 Highland Ave, Felton, CA 95018, USA

allielalor@gmail.com | (408) 220-5214 | alexandralalor.github.io

Research Interests

Fire ecology, dendrochronology, forest regeneration

Education

Feb 8 th 2021 – Dec 16 th 2022	University of Arizona , Tucson AZ, GPA 4.0 M.S. Natural Resources Studies, Outstanding Thesis Thesis: <i>Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest Regeneration across a Landscape Gradient</i>
Aug 12 th 2013 – May 13 th 2017	University of California , Berkeley CA, GPA 3.8 B.S. Honors Environmental Science Major Thesis: <i>Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore</i>
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: <i>The California Channel Islands Project: Wildlife Recovery and Reintroduction</i>

Publications

2023	Lalor, A. R. , Law, D. J., Breshears, D. D., Falk, D. A., Field, J. P., Loehman, R. A., Triepke, F. J., & Barron-Gafford, G. A. (2023). Mortality thresholds of juvenile trees to drought and heatwaves: implications for forest regeneration across a landscape gradient. <i>Frontiers in Forests and Global Change</i> , 6, Article 1198156. https://doi.org/10.3389/ffgc.2023.1198156
------	---

Peer Reviews

2022	Ecosphere , 1 publication
------	----------------------------------

Research Projects

Feb 8 th 2021 – Dec 16 th 2022	<u>Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest Regeneration across a Landscape Gradient</u> <i>Master's Thesis, University of Arizona</i>
Jan 19 th 2016 – May 12 th 2017	<u>Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore</u> <i>Senior Thesis, University of California Berkeley</i>

Professional Experience

- June 15th 2025 – present
(permanent)
- Fire Ecologist**, National Park Service (NE Region South Zone), GS-0408-09, 40 hours/week
Shenandoah National Park, Luray VA
- Supervising the NPS Northeast Region Fire Effects Monitoring crew
 - Managing data for 6 National Park Service units in the Northeast Region South Zone (Mountains-to-the-Sea & Allegheny)
 - Assisting with data collection and management for 9 NPS units in the Northeast Region North Zone (Mid Atlantic and New England) and National Capital Area
 - Collecting forest and grassland ecological field data
 - Introducing techniques for streamlined data management (electronic data collection, R programming for QAQC and analysis, etc.)
 - Reviewing burn plan objectives and performing analysis on long term datasets to evaluate if burn objectives were met
- Dec 3rd 2023 – June 14th 2025
(permanent)
- Assistant Lead Fire Effects Monitor**, National Park Service, GS-0404-06, 40 hours/week
Grand Canyon National Park, North Rim AZ
- Crew leadership and program management
 - R programming for quality control of datasets (independent project)
 - Developed FFI + R Working Group within the NPS Fire Ecology Program
 - 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
- May 8th 2023 – Oct 27th 2023
- Lead Biological Science Technician**, US Geological Survey, GG-0404-06, 40 hours/week
Western Ecological Research Center, Sequoia & Kings Canyon National Parks, Three Rivers CA
- Leading researchers into backcountry field sites to collect fuel data in recently burned and unburned Sequoia groves at Sequoia-Kings Canyon National Parks
 - Analyzing forest regeneration and seedling abundance
- May 9th 2021 – Nov 6th 2021
- Assistant Lead Fire Effects Monitor**, National Park Service, GS-0404-06, 40+ hours/week
Grand Canyon National Park, North Rim AZ
- Monitoring the effectiveness of prescribed fire treatments using long-term forest plots
 - Wildland firefighting and prescribed burn operations
 - Crew leadership and program management
- May 10th 2020 – Nov 21st 2020
- Fire Effects Monitor**, National Park Service, GS-0404-05, 40 hours/week + 10 hours OT/week
Grand Canyon National Park, North Rim AZ
- 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
- Nov 8th 2019 – March 16th 2020
- Storefront Manager**, Good Life Ceramics, 10 hours/week
Santa Cruz CA
- Opening and closing the storefront, cashiering, managing studio membership
 - Loading and unloading the kiln, recycling clay and operating pug machines
 - Teaching walk-in customers to hand build selected projects

- May 13th 2019 –
Oct 24th 2019
- Fire Effects Monitor and Fire Dispatcher**, National Park Service, GS-2151-03, 40 hours/week
North Cascades National Park, Marblemount WA
- Curation of tree cores and verifying fire scars using dendrochronology
 - Wildland firefighting and pile burn experience
 - Communications center radio dispatching
 - Collecting forest data such as plot photos, tree growth, shrub abundance, plant species composition, fuel loading, and seedling counts
- Sept 5th 2018 –
Dec 19th 2018
- Luquillo Long-Term Ecological Research Intern**, University of Puerto Rico, 40 hours/week
El Verde Field Station, El Yunque PR
- Measuring forest characteristics such as canopy photos, fern surveys, litter processing, and coarse wood debris surveys
 - Coring soils for microbial studies, analyzing root growth for carbon studies
- May 22nd 2017 –
May 18th 2018
- Dendrochronology Research Intern**, US Geological Survey, 40 hours/week
New Mexico Landscapes Field Station, Bandelier National Monument, Santa Fe NM
- 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
 - Familiarity with R statistical programming and analyzing spatial pattern using GIS
- Sept 17th 2016 –
May 12th 2017
- Events Associate**, Student Environmental Resource Center, 10 hours/week
Berkeley CA
- 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
 - Connect with environmental professionals and host career networking events
 - Strategic, long-term planning and evaluation of existing and future SERC programs
- Jan 20th 2015 –
May 12th 2017
- Zero Waste Coordinator**, Cal Dining Sustainability Team, 10 hours/week
Berkeley CA
- Working with dining facilities and students to promote food literacy and waste reduction – organizing recycling challenges, donation programs, and gardening events
 - Implementing large scale local food night in the dining halls across campus.
 - Conducted waste audits to determine ways to divert food waste in dining halls as well as spearheading a long-term Zero Waste Challenge between dining facilities
 - 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
- Storefront Shift Lead**, Berkeley Student Food Collective, 10 hours/week
Berkeley CA
- 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
- Natural Resources Volunteer**, National Park Service, 32 hours/week
Walnut Canyon National Monument, Flagstaff AZ
- 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 –
present
- FFI + R Working Group**, National Park Service Fire Ecology Program
Co-Founder
- Established working group among NPS Fire Ecology professionals to develop R literacy among our work group, collaborate on relevant code, and build community
 - Held monthly meetings for code sharing and project development
 - Developed workshop series: (1) Using R for Quality Control/Quality Assurance of FFI Datasets, and (2) Using R for Data Visualization of FFI Datasets
 - Established sub-groups to guide targeted R projects (Workshop Planning, Data Workflow, Mentorships)
- 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
- January 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)

Workshops and Presentations

- Ongoing **FFI + R Working Group Workshop Series**, virtual
- April 2025 *Using R for Data Visualization of FFI Datasets*
- December 2024 *Using R for Quality Control/Quality Assurance of FFI Datasets*
- 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
[*Parsed & Parched: Bridging Culture and Ecology Through Borderland Waters*](#)
- 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 <i>Zero Waste Youth USA – Florianópolis, Brazil</i> <i>Food Waste at University of California Berkeley – Joinville, Brazil</i>
May 2017	Honors Environmental Science Thesis Presentation and Poster Session , Berkeley CA <i>Multi-Scale Analysis of Grazing Impacts on Biodiversity at Point Reyes National Seashore</i>
November 2016	Powershift Convergence , Berkeley CA <i>Deconstructing Zero Waste Privilege</i>
March 2016	Zero Waste Youth USA Convergence , San Francisco CA <i>Food Waste Reduction at Cal Dining</i>

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.
------------	---

Professional Development

September 2022 – November 2022	Foundational Open Science Skills Workshop , Tucson AZ (virtual) CyVerse <ul style="list-style-type: none"> 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) <i>Association for Fire Ecology</i> <ul style="list-style-type: none"> 4-day conference including workshops, presentations, and discussion groups

Professional Memberships

December 2021 – present	Association for Fire Ecology
----------------------------	------------------------------

Fellowships

August 2022 – December 2022	Roots for Resilience (R4R) (\$7,000), Tucson AZ <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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

Grant Writing Experience

November 2024	Workforce Development Grant (\$4,000) <ul style="list-style-type: none">• 4th Southwest Fire Ecology Conference in Santa Fe NM
March 2022	Graduate & Professional Student Council (GPSC) Travel Grant (\$2,000) <ul style="list-style-type: none">• North American Dendroecological Fieldweek (NADEF) in Quebec Canada
January 2016 – May 2017	Expanding Zero Waste in the Residence Halls (\$12,000) <ul style="list-style-type: none">• Furnish the residence halls at UC Berkeley with compost and recycling bins to help reach the campus zero waste goals
January 2015 – June 2016	Bulk Bins at Cal Dining , The Green Initiative Fund, (\$6,000) <ul style="list-style-type: none">• 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 – 2023	Graduate AFAT Scholarship (\$3,000), University of Arizona
2022 – 2023	Natural Resources Tuition Scholarship (\$2,595), University of Arizona
2021 – 2022	Natural Resources Tuition Scholarship (\$3,026), University of Arizona
2021 – 2022	Hope I. Jones Scholarship (\$812), University of Arizona
2021 – 2022	Clifford W. Carstens Jr. Scholarship (\$1,020), University of Arizona
2021 – 2022	Joe K. Fannin Scholarship – Rotates (\$442), University of Arizona
2021	HEERF III Grant (\$2,750), University of Arizona

Honors and Awards

2024	Performance Award , Grand Canyon National Park
2023	Outstanding Thesis Award , University of Arizona
2022	Roots for Resilience Fellowship awardee , University of Arizona
2021	University Climate Change Coalition Fellowship 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
FEMO (Trainee) Fire Effects Monitor – NWCG
FFT1 (Trainee) Firefighter Type 1 – NWCG
ICT5 (Trainee) Incident Commander Type 1 – NWCG
FAL3 (Trainee) Basic Faller – NWCG