

Alexandra Lalor (she/her)

Curriculum Vitae

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Research Interests

Fire ecology, fire history, dendroecology

Education

Feb 8 th 2021 – Dec 16 th 2022	University of Arizona , Tucson AZ, GPA 4.0 M.S. Natural Resources Studies 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 (in review)

2023	Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications for Forest Regeneration across a Landscape Gradient
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Peer Reviews

2022	Ecosphere , 1 publication
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Research Projects

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

Professional Experience

May 9th 2021 –
Nov 6th 2021

Grand Canyon National Park, North Rim AZ

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

- 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

Nov 8th 2019 –
March 16th 2020

Good Life Ceramics, Santa Cruz CA

Storefront Manager

- Opening and closing the storefront
- Cleaning the storefront and communal tools
- Handling money and cashiering, managing studio membership
- Assisting members in finding supplies, buying clay, and following studio protocol
- Loading and unloading the kiln
- Recycling clay and operating pug machines
- Handling clay at all stages
- Glazing hand-built projects
- Teaching walk-in customers to hand build selected projects
- Customer service
- Demonstrating clay-building to large corporate events, both on-site and off-site
- Managing on-site private events, such as birthday parties or employee workshops

May 13th 2019 –
Oct 24th 2019

North Cascades National Park, Marblemount WA

Fire Effects Monitor and Fire Dispatcher, GS-3

- 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
- Curation of tree cores and verifying fire scars using dendrochronology
- Wildland firefighting and pile burn experience
- 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
- Coquí and Anole abundance surveys

- Coring soils for microbial studies
- Carbon studies in warming plots through analysis of root growth
- Data entry, quality control, and data analysis
- Experience living and working in a tropical ecosystem

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
- Familiarity with R statistical programming and analyzing spatial pattern using GIS
- Extensive hiking across mountainous regions identifying fire scarred trees, carrying heavy loads
- 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
- Hosting a film with the Green Film Festival
- 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

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
- Initiating educational programs, such as food waste audits and designing signage
- 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
- Closely working with a small team and communicating with workers and managers
- Independently working on and initiating new projects related to food sustainability
- 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 –
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 –
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
[*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
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 – November 2022 **Foundational Open Science Skills Workshop**, Tucson AZ (virtual)
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 –

[Roots for Resilience \(R4R\)](#) (\$7,000), Tucson AZ

December 2022

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

August 2021 –

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

May 2022

- 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

March 2022

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

- 2022 North American Dendroecological Fieldweek (NADEF) in Quebec Canada

January 2016 –

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

May 2017

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

January 2015 –

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

June 2016

- 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

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

References

Dr. Donald Falk

Professor
520-661-3571 (cell); 520-626-7201 (work)
University of Arizona, ENR2 Building N-224, Tucson, AZ 85721
dafalk@arizona.edu
Faculty Advisor for graduate position

Dr. David Breshears

Regents Professor
520-333-0998 (cell); 520-621-7259 (work)
University of Arizona, ENR2 Building N-227, Tucson, AZ 85721
daveb@arizona.edu
Faculty Advisor for graduate position

Li Brannfors

Lead Fire Effects Monitor
928-606-5439 (cell); 928-638-7063 (work)
1 Admin Loop, North Rim, AZ 86052
li_brannfors@nps.gov
Supervisor for Grand Canyon fire effects position

Matthew Engbring

Fire Ecologist
928-607-4335 (cell); 928-707-0304 (work)
1 Admin Loop, North Rim, AZ 86052
matthew_engbring@nps.gov

Supervisor for Grand Canyon fire effects position

John Albrecht

Owner of Good Life Ceramics
831-345-7916 (cell); 831-515-7560 (work)
3717 Portola Drive, Santa Cruz, CA 95062
glconportola@gmail.com
Supervisor at Good Life Ceramics

Cedar Drake

Lead Fire Effects Monitor
360-630-3231 (cell); 360-854-7355 (work)
7280 Ranger Station Road, Marblemount, WA 98267
cedar_drake@nps.gov
Supervisor for North Cascades fire effects internship

Karen Kopper

Fire Ecologist
360-333-9659 (cell); 360-854-7354 (work)
7280 Ranger Station Road, Marblemount, WA 98267
karen_kopper@nps.gov
Supervisor for North Cascades fire history internship

Lesha Zitkovich

Fire Program Management Assistant / Dispatcher
509-680-1278 (cell); 360-854-7351 (work)
7280 Ranger Station Road, Marblemount, WA 98267
lesha_zitkovich@nps.gov
Supervisor for North Cascades fire dispatcher position

Jamarys Torres-Díaz

Research Manager of the Luquillo Forest Dynamics Plot
787-373-0068 (cell)
El Verde Field Station, HC-05 Box 8974, Río Grande, Puerto Rico 00745-9601
jamaris.torres@upr.edu
Supervisor for Luquillo research internship

Lane Johnson

Research Forester
507-330-6165 (cell); 218-726-6411 (work)
175 University Road, Cloquet, MN 55720
lbj@umn.edu
Supervisor for USGS dendrochronology research internship

Ellis Margolis

Research Ecologist at the USGS New Mexico Landscapes Field Station
404-668-3272 (cell); 505-954-2251 (work)
301 Dinosaur Trail, Santa Fe, NM 87508

emargolis@usgs.gov

Supervisor for USGS dendrochronology research internship

Craig Allen

Lead Research Ecologist at the USGS New Mexico Landscapes Field Station

505-795-1571 (cell); 505-672-3861 ext. 720 (work)

301 Dinosaur Trail, Santa Fe, NM 87508

craig_allen@usgs.gov

Supervisor for USGS dendrochronology research internship

Samantha Lubow

Sustainability Coordinator

510-708-8477 (cell); 510-643-1220 (work)

2610 Channing Way #MC2272, Berkeley, CA 94720-2272

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Supervisor for Cal Dining Sustainability Team position

Sharon Daraphonhdeth

Director of the Student Environmental Resource Center

415-225-0980 (cell); 510-643-2992 (work)

2495 Bancroft Way, Suite 82C3, Berkeley, CA 94720-4520

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Supervisor for Student Environmental Resource Center position