Jordan Ellison

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In Progress: M.S in Fish, Wildlife and Conservation Ecology — Expected Graduation: May 2023

New Mexico State University — Las Cruces, NM

B.A. with Distinction in Organismal Biology & Ecology — May 2019

Colorado College — Colorado Springs, CO

Research

Burrowing Owl Nest Distribution Patterns and Multi-scale Landscape Effects on Nest Survival and Productivity Across a Latitudinal Gradient — September 2021-Present

NMSU — Principal Investigators: Dr. Martha Desmond and Dr. Fitsum Abadi Gebreselassie

- Completed and defended a research proposal to examine past Burrowing Owl nest survival and productivity data
- Currently analyzing the effects of environmental factors and landscape structure and composition on Burrowing Owl nest survival and productivity
- Will evaluate the spatial distribution patterns of Burrowing Owl nests within Prairie Dog colonies across a latitudinal gradient
- Will assess the effects of nest distribution patterns on owl nest survival and productivity

Impacts of Passive Relocation on the Dispersal, Survival and Reproduction of Burrowing Owls Across a Heterogeneous Landscape — *January 2021-September 2021*

NMSU — Principal Investigators: Dr. Martha Desmond and Dr. Fitsum Abadi Gebreselassie

• Designed an experimental study and completed a research proposal to assess the impacts of passive relocation on the survival, reproduction and dispersal of Burrowing Owls around Phoenix, AZ

Predation Impacts on Flammulated Owls Nest Success and Habitat Selection — Fall 2018-Spring 2019 Colorado College — Principal Investigator: Dr. Brian Linkhart

- <u>Undergraduate thesis</u>: "The Rodent Eats the Raptor: Impacts of Red Squirrels (*Tamiasciurus hudsonicus*) on Flammulated Owl (*Psiloscops flammeolus*) Nest Success and Habitat Selection"
- Independently designed and completed a study to estimate Red Squirrel density using distance sampling along line transects
- Used R to analyze a large dataset associated with a long-term ecological study on Flammulated Owls

Professional Experience

Graduate Research Assistant — January 2021-Present

Las Cruces, NM — NMSU – Dept. of Fish, Wildlife and Conservation Ecology (FWCE)

- Summarize and analyze historical Burrowing Owl nest survival and productivity data
- Compile geospatial data (using rgee) and combine it with previously collected field data for analysis
- Assist in the design, development and initiation of a research project to assess the impacts of passive relocation on Burrowing Owls by communicating with collaborators
- Working Group Coordinator within FWCE Graduate Student Organization (Spring 2022 Present)

Lead Biological Science Technician (GS-06) — May 2021-August 2021

Ruidoso, NM — USDA Forest Service R3 – Smokey Bear Ranger District, Lincoln National Forest

• Managed a wildlife crew of 5 technicians to perform wildlife and botany surveys, including for sensitive and threatened & endangered species in accordance with goals of the USDA Forest Service

- Perform standardized surveys to monitor the occupancy and reproduction of the Mexican Spotted Owls across the district using protocols established by the USFWS
- Maintained data collection quality control/quality assurance and complete an end of season report
- Assisted district biologists and other USFS personnel in other projects as needed, such as public education and outreach

Waterbird Monitoring Program Conservation Intern — *January 2020-June 2020* Bahía de Kino, Sonora, Mexico — Prescott College Kino Bay Center

- Completed standardized surveys to monitor the status of waterbirds in the region
- Initiated efforts to analyze long-term data from recurring surveys to infer trends in waterbird abundance over time
- Collaborated with other internal community and conservation programs (Marine Mammal Monitoring, Environmental Education, etc.)

Fall Raptor Migration Technician — August 2019-October 2019

Chelan, WA — HawkWatch International

- Identified and counted migrating diurnal raptors in-flight
- Trapped raptors using lure birds and mist nets, Dho-ghazza nets and bow nets
- Presented raptors in-hand to educate visiting college students and members of the general public about raptor ecology and conservation
- Assisted in caring for lure birds throughout duration of the migration season

Field Technician — May 2017-August 2019

Colorado Springs, CO — Colorado College – Dept. of Organismal Biology & Ecology

- Searched for and monitored Flammulated Owl nests to continue a long-term demography study across 4 different study areas as part of a large crew (7-9 technicians)
- Captured, handled and processed adults and nestlings at nests or with mist-nets
- Mentored and taught field skills to new technicians; Crew leader in 2019
- Completed vegetation and habitat surveys around nests

Volunteer Banding Assistant — Summers 2018-2019

Woodland Park, CO — Institute for Bird Populations MAPS Program Banding Station

• Assisted in mist-netting, identifying (i.e. age, sex) and banding of songbirds following MAPS protocol

GIS Lab Technician — August 2017-May 2019

Colorado Springs, CO — Colorado College — Office of Information Technology

- Assisted students and professors to address geospatial questions, resolve problems and errors and/or complete labs or analyses to effectively communicate geographical information across disciplines
- Taught students basic to advanced geospatial skills and analyses
- Prepared workflows and labs, and performed demonstrations for classes
- Created, analyzed and managed large vector and raster datasets across various databases

Teaching Experience

Teaching Assistant — FWCE 1110G: Intro to Natural Resources Management — Fall 2022 Las Cruces, NM — New Mexico State University – Dept. of Fish, Wildlife and Conservation Ecology

- Teach a lab section of 25 undergraduate students (primarily 1st years)
- Lead field trips to introduce field collection methods while prioritizing student safety

Teaching Assistant — FWCE 330: Natural History of Vertebrates — Spring 2022

Las Cruces, NM — New Mexico State University – Dept. of Fish, Wildlife and Conservation Ecology

• Aided in the planning, set-up, completion and clean-up of labs and dissections

• Help design lab and exam questions and assist in grading such materials for a class of ~40 students

Program Assistant — October 2019-December 2019

Costa Rica and Belize — Colorado College – Fall Semester Away Program

- Helped plan and supervise daily lessons and activities for an introductory tropical ecology course
- Communicated biological and ecological themes and theories to first-year undergraduate students
- Located and identified a variety of plants, birds, insects, fish and other animals found in tropical forests and coral reefs of Costa Rica and Belize

Student Tutor— Fall 2017

Colorado Springs, CO — Colorado College – Dept. of Organismal Biology & Ecology

- Conducted group review sessions for an introduced ecology class
- Individually tutored students to review material before tests and quizzes

Conference Presentations

- **Ellison, J.T.** and Linkhart, B.D, Effect of Nest Predation on Nest Site Selection of Flammulated Owls (*Psiloscops flammeolus*). Poster Presentation at 2020 North American Ornithological Conference, Virtual. August 2020.
- **Ellison, J.T.** and Linkhart, B.D, **The Rodent Eats the Raptor**. Oral Presentation at Colorado College's annual Organismal Biology and Ecology meeting. Colorado Springs, CO. March 2019.
- **Ellison, J.T.** and Linkhart, B.D, **Does risk of predation affect nest site selection of Flammulated Owls** (*Psiloscops flammeolus*)? Poster Presentation at Midstates Undergraduate Research Symposium, University of Chicago, Chicago, IL. November 2018.
- **Ellison, J.T.** and Linkhart, B.D, How does proximity to predator activity centers affect nest site and success in Flammulated Owls (*Psiloscops flammeolus*)? Poster Presentation at GIS in the Rockies, Geospatial Conference of the Rocky Mountain West, Denver, CO. September 2018.
- **Ellison, J.T.** and Linkhart, B.D, How does proximity to predator activity centers affect nest site and success in Flammulated Owls (*Psiloscops flammeolus*)? Poster Presentation at Colorado Springs Undergraduate Research Forum (CSURF), Colorado Springs, CO. April 2018.
- Dorwart, L.D., Ellison, J.T., Linkhart, B.D, Stein, E.S., Environmental and ecological impacts of Flammulated Owls (*Psiloscops flammeolus*) in the Pikes Peak Region. Poster Presentation at Summer Collaborative Research Symposium, Colorado Springs, CO. September 2017.

Skills

- Safely capture, handle and process diurnal raptors, small owls and songbirds. Sub-permittee by BBL to capture, band and use auxiliary markers on Burrowing Owls in Arizona. (~120 birds banded, ~50 bled, several backpack style transmitters attached)
- Identify fauna and flora across Western North American
- Design and perform standardized surveys for plants and animals (ie. point-counts, point-quarter, etc.)
- Apply or learn appropriate biostatistical methods to answer ecological questions
- Proficient with R to manipulate, analyze, visualize and present data
- Work efficiently with GIS to describe, analyze and visualize spatial data using ESRI products and R
- Proficient in Microsoft Office in English and Spanish
- Fluency in speaking and writing Spanish

Awards

Gratis Membership, American Ornithological Society (AOS) — September 2020 Awarded in place of NAOC 2020 travel award in support of Diversity and Inclusion Student Membership Award Recipient, American Ornithological Society (AOS) — January 2020

The Jim Enderson Award in Conservation Biology, Colorado College Dept. of Organismal Biology & Ecology — May 2019

This award in honor of Professor Jim Enderson is awarded to a student who has shown commitment and productivity in an original research project in conservation biology.

Invited Presentations and Lectures

"Multi-scale Landscape and Environmental Effects on Burrowing Owl Nest Survival" —Jones Applied Ecology Lab (UNM) —August 2022

Presentation on current master's thesis research to Jones Applied Ecology Lab Group

"How Did I Get Here?" — NMSU FWCE 330: Natural History of Vertebrates — April 2022

Guest lecture on past and present research, as well as my career path to graduate school

"Working in Wildlife" — NMSU Alamogordo — April 2021

Presentation on my research and career path to 2-year and 4-year NMSU undergraduates

"The Life of a Professional Bird Nerd" — Women in Stem Lecture Series - Oyster Adams Bilingual Middle School in Washington, D.C. — March 2021

Presentation on my field work and career path to a middle school Women in STEM club

Workshops Led

Data Vis in R: *ggplot2* – NMSU FWCE Graduate Student Organization — *Expected: October 2022* Introduce the basics of using *ggplot2* for data visualization

Google Earth Engine in R- NMSU FWCE Graduate Student Organization — Expected: November 2022 Introduce Google Earth Engine and how to utilize it using R using rgee

Telemetry Skills Workshop – NMSU Women of Wildlife (WOW) — March 2022

Assisted in teaching small groups of undergraduate students the basics of radio telemetry (taking a bearing, triangulation, etc.)

Making a Website in GitHub – NMSU FWCE Graduate Student Organization — February 2022

Present code and examples to walk through how to build a website using GitHub

Spatial Analyses in ArcMap – NMSU FWCE Graduate Student Organization — November 2021 Presented on the following topics: raster analysis and generating summaries of spatial data

Telemetry Skills Workshop – NMSU Women of Wildlife (WOW) — April 2021

Assisted in teaching small groups of undergraduate students the basics of radio telemetry

GIS in R - NMSU FWCE Graduate Student Organization - April 2021

Presented on the following topics: Processing and analyzing LiDAR data in R, generating NDVI from LANDSAT imagery, and how to create an inset map

Formal Mentorship Experience

ENHANCEMENT (Enhancing Hispanic Access to Natural Resource and Agricultural Careers through Education, Mentorship, and Training) – NMSU – College of Agricultural, Consumer and Environmental Sciences — Spring 2021 - Present

Graduate student mentor in which we help engage Hispanic/Latinx undergraduates in 2-year and 4-year programs at NMSU

NMSU WILD in Ecology (Formerly Women of Wildlife or WOW) — Spring 2021 – Present As a core member, assist in leading and organizing events to engage undergraduate students through mentorship, skills workshops and "nature walks"

Professional Development

Diversity Preview Weekend Participant - Cornell University — September 2020

Depts. of Ecology & Evolutionary Biology and Entomology, and School of Integrative Plant Sciences

Invited Workshop Participant - PROGRESS (PROmoting Geoscience Research, Education and SucesS) — October 2016

Professional Affiliations

American Ornithological Society (AOS)

Raptor Research Foundation (RRF)

Society Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS)

Other Prior Work Experience

Student Photographer — August 2018-May 2019; August 2016-May 2017

Colorado Springs, CO — Colorado College — Office of Communications

• Photographed school events, activities and daily life for print and online publications

Resident Advisor — August 2017-May 2018

Colorado Springs, CO — Colorado College – Office of Residential Life and Activities

• Built an inclusive community supporting 23 first- and second-year students in a large residence hall

Tour Guide — September 2016-September 2017

Colorado Springs, CO — Colorado College — Office of Admissions

• Represented Colorado College while providing campus tours to prospective students and parents

Painting Intern — Summer 2016

Colorado Springs, CO — Leiser Painting

• Cleaned, prepped and painted the interior and exterior of residential and commercial properties

References

Available upon request