

# Eva Deegan

esd96@nau.edu

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## EDUCATION

**Northern Arizona University** – advisor: Dr. Kiona Ogle Flagstaff, Arizona  
Ph.D., Informatics and Computing - Ecological and Environmental Informatics *In progress*  
**University of Notre Dame** Notre Dame, Indiana  
Bachelor of Science, Major: Environmental Sciences, Minor: Data Sciences, GPA: 3.85 May 2023  
Fall 2020 Dean's List for College of Science

## AWARDS AND GRANTS

**Northern Arizona University** Flagstaff, Arizona  
*Presidential Fellowship Award* March 2024  
Merit-based fellowship awarded to a select group of scholars for high academic achievement, scholarly research and potential to succeed in a doctoral program  
**2024 Fire Management Achievement Award** June 2024  
The National Park Service Regions 6, 7, & 8 Fire Management Achievement Award is given annually to individuals who have enhanced or improved the quality of fire management programs in the region.  
**University of Notre Dame** Notre Dame, Indiana  
*Outstanding Student Leader Award, Department of Biological Sciences* May 2023  
Seniors nominated for this award must be exemplary student leaders in the Department of Biological Sciences. The student will have made outstanding contributions, through their leadership and service, to advance the interests of other students in the department.  
*Nominee for Environmental Sciences Valedictorian* May 2023  
*College of Science Grant for participation in AGU Conference* December 2023  
*College of Science Summer Undergraduate Research Funding Grant* May 2022  
**Fulbright Scholarship Semifinalist** January 2023  
Proposed project to quantify forest fire carbon emissions in Chile with Dr. Horacio Gilabert's lab at Pontificia Universidad Católica de Chile

## PRESENTATIONS

**Ecological Society of America Conference (ESA)**, Long Beach, California August 2024  
"Quality Control and Analysis of Fire Effects Data in R for Saguaro National Park" (Oral Presentation)  
Co-authored with Windy Bunn, Sarah Studd  
**Association for Fire Ecology and Management Congress (AFE)**, Monterey, California December 2023  
"Quality Control and Analysis of Fire Effects Data for Southern Arizona National Parks" (Oral Presentation)  
Co-authored with Windy Bunn, Sarah Studd  
**American Geophysical Union Conference (AGU)**, Chicago, Illinois December 2022  
"Drought-driven Changes in Terrestrial Water Use Efficiency Impact Lateral Carbon Transport" (Poster)  
Co-authored with Ceara J. Talbot, Stuart E. Jones

## RESEARCH

**Northern Arizona University - School of Informatics, Computing, and Cyber Systems** Flagstaff, Arizona  
*Vegetation Community Ecology Researcher, part time* June 2023 – present

Advisor: Dr. Kiona Ogle

- Analyzing Southern Colorado Plateau Network grassland vegetation data for trends and future management
- Developing hierarchical, multi-species occupancy model with imperfect detection to use with NPS data

**National Parks Service (NPS) - Scientists in Parks (SIP) Program** Tucson, Arizona  
*Fire Ecology Assistant, Desert Research Learning Center, full time* June 2023 – June 2024

Mentors: Sarah Studd, Windy Bunn

- Developed a QAQC R package and analysis scripts to standardize quality control and analysis for a 30+ year fire effects dataset within the NPS fire effects monitoring program, all code published on GitHub
- Supported fire management in data driven decisions with analysis results on vegetation in Saguaro National Park, working with fire management and inventory and monitoring staff
- Presented a nationwide virtual training on using R and GitHub for fire ecology data with 40+ NPS attendees
- Assisted with multi-day trips to collect NPS monitoring data for fire effects, wildlife, vegetation, and streams

**University of Notre Dame - Department of Biological Sciences** Notre Dame, Indiana  
*Aquatic Ecology Researcher, part time* August 2020 – December 2022

Advisor: Dr. Stuart Jones

- Processed water chemistry samples for particulate organic phosphate
- Weighed and processed sediment samples for carbon content at microscale

*Carbon Modeling Researcher, full time* May 2022 – August 2022

Advisors: Dr. Stuart Jones, Ceara Talbot

- Developed and performed an independent research project modeling lateral carbon transport response to drought induced changes in plant water use efficiency

**University of Notre Dame - Environmental Research Center** Gogebic County, WI  
*Limnology Field Crew Member, full time* May 2021 – August 2021

Supervisors: Dr. Stuart Jones, Randi Notte

- Performed limnology and hydrology data collection on 12+ lakes each week
- Prepared and analyzed zooplankton, water chemistry, and color samples

## TEACHING

**University of Notre Dame - Department of Biological Sciences** Notre Dame, Indiana  
*Biostatistics Teaching Assistant, part time* January 2023 – May 2023

Professor: Dr. Jason McLachlan

- Assisted in teaching tutorial and hosting office hours to aid students with code and statistics
- Graded student assignments and provided feedback

*General Ecology Lab Teaching Assistant, part time* August 2021 – December 2021

Professor: Dr. Dominic Chaloner

- Assisted students in performing labs and field trips related to forest and stream ecology, leaf decomposition, and forest succession at the Indiana Dunes State Park
- Helped students with data analysis and reports to summarize ecological findings
- Worked with a team of faculty and graduate students on future direction of ecology lab course including transitioning to a new Practical Ecology lab course curriculum

## LEADERSHIP AND SERVICE

- Mentorship Event Coordinator, ESA Southwest Chapter** 2024 – present
- Helping plan mentorship events for the Southwest chapter for ESA’s annual meeting
- Volunteer at Mission Gardens in Tucson, Arizona** 2023 – 2024
- Assisted with gardening, community outreach events, and maintenance of facility
- Chair of Notre Dame Environmental Science Senior Leadership Committee** 2020 – 2023
- Lead weekly meetings of a 35–member committee of students and directed a team of students
  - Planned department–wide social events for the major and designed and ordered apparel
  - Served as a student representative for the major in several faculty meetings and promotional events
- Teaching Professor Hiring Committee for Biological Sciences** January - March 2023
- Served as an undergraduate student member of faculty hiring process
- Member of Notre Dame Mock Trial Team** 2019 – 2023
- Member of Nationally ranked team (9th of 700 teams in 2023)
- Sustainability Commissioner, Lewis Residence Hall** 2020 – 2021
- Planned sustainable events for the dorm and ran recycling and trash programing

## SKILLS

### Software Skills

- *Languages:* R (Proficient), GitHub (Proficient), Python, Bash, HTML/CSS
- *Applications:* Excel, Word, PowerPoint, Adobe Illustrator, Premiere Pro
- *Specialized Training:* FFI, ArcGIS Pro, GitHub, Web scraping with Python, accessing and downloading large datasets (gridded products, remote sensing data), parallel and remote computing

### Lab and Field Skills

- Standard lake and stream water sampling (e.g., grab samples, van Dorn),
- Nutrient, carbon, dissolved organic matter analyses,
- Elemental analysis of lake sediment samples
- Standard fire effects data collection (e.g., tree DBH, fire damage, fuel transects)
- Grassland vegetation identification and data collection
- Wildlife camera deployment and collection
- Snake handling certification
- Red card wildland firefighting certification

### Relevant Coursework

- Biocomputing, Biostatistics, Bayesian Statistics and Biological Forecasting, Data Visualization, Applied Bayesian Statistics and Modeling, Modern Regression I, Visualizing Scientific Results

## INTERNATIONAL EXPERIENCE

**Pontificia Universidad Católica de Chile (University of Notre Dame Study Abroad)** Santiago, Chile  
Lived with host family and took courses all in Spanish February - July 2022

**Lycée Saint–Exupéry (Rotary Youth Exchange Program)** Lyon, France  
Lived with host family and took courses all in French August 2018 – June 2019

## LANGUAGES

French: Proficient, DALF C1 Certification  
Spanish: Proficient

## PROFESSIONAL AFFILIATIONS

Member of Ecological Society of America  
Member of Fire Ecology Association

## REFERENCES

- Dr. Kiona Ogle, Professor, Northern Arizona University School of Informatics, Computing, and Cyber Systems, ~ [kiona.ogle@nau.edu](mailto:kiona.ogle@nau.edu)
- Sarah Studd, National Park Service Ecologist, Chihuahuan and Sonoran Desert Networks Inventory and Monitoring Program ~ [sarah\\_studd@nps.gov](mailto:sarah_studd@nps.gov)
- Windy Bunn, Regional Fire Ecologist and Post-Fire Coordinator, National Park Service, Interior Regions 6,7, and 8, ~ [Windy\\_bunn@nps.gov](mailto:Windy_bunn@nps.gov)
- Dr. Stuart Jones, Professor, University of Notre Dame Biological Sciences Department, ~ [sjones20@nd.edu](mailto:sjones20@nd.edu)
- Dr. Dominic Chaloner, Director of Undergraduate Studies for the Environmental Sciences Major, Professor of the Practice, University of Notre Dame Biological Sciences Department, ~ [chaloner.1@nd.edu](mailto:chaloner.1@nd.edu)
- Dr. Ceara Talbot, Postdoctoral Fellow at Carnegie Science, ~ [ctalbot@carnegiescience.edu](mailto:ctalbot@carnegiescience.edu)