

Garrett J. Knowlton

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Education

NSF Graduate Research Fellow

M.S. in Integrative Biology (Ecosystem & Landscape Ecology)

Department of Integrative Biology

Advisor: Dr. Monica Turner

University of Wisconsin-Madison

Sep. 2022 - Present

B.S. in Fisheries & Wildlife (with Honors)

College of Agriculture and Natural Resources

- Minor in Geographic Information Science
- Concentration in Wildlife Biology
- Demmer Scholars Program (Washington, D.C., Summer 2019)

Michigan State University

Aug. 2015 - May 2020

Research & Work Experience

NSF Graduate Research Fellow

Dept. of Integrative Biology, University of Wisconsin-Madison, Madison, WI

August 2022 - Present

- Research focuses on landscape and forest ecology, climate change, and ecological modeling in the northern Rocky Mountains, USA.

Research Assistant (Contractor)

Aug. 2021 - Aug. 2022

National Park Service, Climate Change Response Program, Ft. Collins, CO (*Remote*)

- Supported the CCRP through analysis of large climate datasets, visualizing temporal patterns through charts and development of maps
- Data analysis and GIS using program R and ArcGIS.
- Conducted relevant literature searches in Google Scholar and Mendeley; formatted for biographies

Remote Sensing Intern

January 2021 - April 2021

NASA DEVELOP National Program, Ft. Collins, CO (*Remote*)

- Investigated the influence of forest management strategies and fuel treatment on wildfire severity in three fires that occurred in 2020 across the front range of Colorado.
- Used Google Earth Engine and RStudio to analyze remote sensing data.

Undergraduate Research Assistant

Aug. 2018 - Aug. 2020

Applied Forest and Wildlife Ecology Lab, MSU, East Lansing, MI

- Conducted fieldwork and data analysis in support of multiple wildlife research projects.

Undergraduate Outreach and Engagement Assistant

Sep. 2019 - Aug. 2020

MSU Extension & Fisheries and Wildlife Department, MSU, East Lansing, MI

- Conducted interviews with meat and deer processing business owners and hunters regarding their perceived risks of chronic wasting disease to their health and businesses.
- Reviewed and edited interview transcripts, coding interviewing using Dedoose qualitative software.
- Prepared a manuscript for peer-review.

Undergraduate Research Assistant *Nov. 2016- May 2020*

Quantitative Wildlife Center, MSU, East Lansing, MI

- Supported Chronic Wasting Disease research projects and analyzed deer movement patterns.

Conservation Programs Intern / Demmer Scholar *May 2019 – Aug. 2019*

Sustainable Forestry Initiative, Washington, D.C.

- Provided geospatial support and built interactive web maps. Reviewed SFI grant projects and developed a dataset to determine project locations, areas of impact, and overarching themes of projects.
- Tracked relevant federal legislation, attended hearings, and provided policy briefings to SFI staff.

Bat Ecology Intern / Field Technician *May 2018 - Aug. 2018*

National Park Service & Boise State University, Grand Teton National Park, Moose, WY

- Worked collaboratively with the National Park Service and Boise State to monitor bat populations within Grand Teton National Park via acoustic monitoring and bat capture and tracking.

Sharp-tailed Grouse Field Technician *Mar. 2018 – May 2018*

Applied Forest and Wildlife Ecology Lab, MSU, East Lansing, MI

- Worked collaboratively with the Applied Forest and Wildlife Ecology Lab and Michigan Department of Natural Resources in an effort to locate, trap, and translocate sharp-tailed grouse from the eastern to western Upper Peninsula, Michigan.

Sea Lamprey Research Technician *May 2017 - Aug. 2017*

Weiming Li Laboratory, Hammond Bay Biological Station, MI

- Fieldwork researching invasive sea lamprey behavior in northern Michigan.

Leadership/Extracurricular Experience

Volunteer *May 2021- Present*

Conservation Data Lab, The Nature Conservancy (Remote)

- Provide assistance to other early career researchers and students on coding and spatial analysis using R and open-source GIS software.
- Build a website for the group utilizing coding software (R) that members can contribute to and use as a professional website.
- Lead intro to Google Earth Engine workshops and highlight applications of remote sensing in ecology.

Justin S. Morrill Leadership Fellow *Aug. 2018 - May 2020*

College of Agriculture and Natural Resources, MSU, East Lansing, MI

- Represent the College of Agriculture and Natural Resources at various events on and off campus for prospective students, alumni, and stakeholders.
- Work with CANR staff and other fellows to plan events, run tours, and perform other various tasks.

Volunteer, Darwin Discovery Day *Feb. 2020*

MSU Museum, East Lansing, MI

Presentations

Knowlton, G., B. Feltman, A. Warwick. Perceptions of Chronic Wasting Disease among Michigan meat processors. Oral presentation. *Pathways Human Dimensions of Wildlife Conference*. May 2022. Bremerton, WA.

Knowlton, G., C. Choi, J. Klisauskaite, N. Swayze. Front Range Disasters: Analyzing the effectiveness of fuel treatment in the Calwood and Cameron Peak fires. *NASA DEVELOP Close-out Presentation*. 29 March 2021. Fort Collins, CO

Knowlton, G.J., J.K. Trudeau, and D.M. Williams. White-tailed deer diel patterns in response to urbanization. Poster presentation at the *2019 Joint Conference of the American Fisheries Society and The Wildlife Society*. 30 September 2019. Reno, NV.

Knowlton, G.J., R.L. Cain, and D.M. Williams. Patterns of white-tailed reporting to the Boone and Crockett records. Oral presentation at the *1st annual Michigan Fish and Wildlife Conference*. 14 March 2019. Gaylord, MI.

Knowlton, G.J., R.L. Cain, and D.M. Williams. Spatially-explicit analysis of white-tailed reporting in the Boone and Crockett records. Poster presentation at the *25th annual meeting of The Wildlife Society*. 11 October 2018. Cleveland, OH.

Knowlton, G.J., R.L. Cain, and D.M. Williams. Spatially-explicit analysis to evaluate reporting rates of white-tailed deer entered in the Boone and Crockett records. Poster presentation at the *20th Annual University Undergraduate Research and Arts Forum*. 13 April 2018. East Lansing, MI.

Grants

National Science Foundation Graduate Research Fellowship (\$138,000) *Apr. 2022*

College of Ag. and Natural Resources Undergraduate Research Grant (\$2,000) *Nov. 2018*

- Comparing white-tailed deer activity patterns and movement rates along an urban-to-rural gradient

College of Ag. and Natural Resources Undergraduate Research Grant (\$2,000) *Feb. 2017*

- Spatially-explicit analysis of white-tailed deer reporting in the Boone and Crockett Records

Organizations

International Association of Landscape Ecology *Date - Present*

The Wildlife Society, National, North-central, and Michigan Sections *Date - Present*