

Jason Hagani

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Education

University of Michigan, Ann Arbor, Michigan **August 2023 – Present**
Doctoral Degree in Research Ecology and Management

Columbia University, New York, New York **September 2019 – May 2021**
Masters of Arts Degree in Ecology, Evolution, and Conservation Biology

Columbia University, New York, New York **September 2015 – May 2019**
Bachelor of Science Degree in Environmental Science

Princeton/Columbia, Laikipia, Kenya **February 2018 – May 2018**
Tropical and Conservation Biology Field Program

Research, Field, and Professional Experience

Suisun Resource Conservation District

Data Analyst/Wildlife Biologist

November 2021 – July 2023

- Coordinated and conducted the first ever rangewide survey of the endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) alongside a large collaboration of government agencies, nongovernmental organizations, and private entities.
- Created a model to identify the extent and distribution of the invasive common reed (*Phragmites australis*) in Suisun Marsh from 2003-2020 using remote sensing imagery. The products of this historical analysis are being used to guide current and future management practices.
- Used LiDAR data to model the habitat selection of the salt marsh harvest mouse through an advanced analysis of vegetation structure.

Columbia University, New York, New York

Teaching Assistantship

January 2021 – May 2021

- Served as the TA for Linda Pistolesi's undergraduate sustainable development course "GIS for Sustainable Development".
- Assisted with course organization and logistics, grading assignments, and leading review sessions.

Cary Institute of Ecosystem Studies

Catskills Research Fellow

February 2020 – January 2021

- Designed a project in collaboration with the New York Department of Environmental Conservation to reduce human-black bear conflict in the Catskills by improving the education of short-term visitors to the region.
- Modeled and created a map of human-black bear interactions in New York to aid in conflict management.
- Secured ~\$15,000 in funding for the project, designed surveys and educational materials, and assisted the DEC with field work.

Columbia University, New York, New York

Teaching Assistantship

January 2020 – May 2020

- Served as the TA for Dr. Lisa Dale's undergraduate sustainable development course "Public Lands in the American West".
- Assisted with course organization and logistics, grading assignments, and leading review sessions.

American Museum of Natural History, New York, New York

Research Experience

September 2018 – Present

- Formulated an undergraduate research thesis in environmental science under the mentorship of Dr. Suzanne Macey (AMNH).
- Analyzed the home ranges of wood turtles at a nature preserve in Connecticut to help better inform conservation management practices.
- Continuing work aims to reorganize my thesis into one or more manuscripts for publication.

Center for Global Engagement, Columbia University, New York

Peer Advisor for the Columbia in Kenya Program (paid, part-time)

September 2018 – May 2019

- Assisted the CGE with managing their Columbia in Kenya program. Gave presentations to classes and helped interested students during all parts of the study abroad process: applying, preparing for travel to Africa, and returning to the States.

Lamont Doherty Earth Observatory, Columbia University, New York

Research Assistant (paid, part-time)

June 2018 – August 2018

- Worked in Dr. Kevin Uno's Paleoecology lab.
- Assisted on projects including: creating a biomarker record of vegetation change in East Africa, improving understanding the lifestyles of Pliocene Anthracotheriidae.
- Introduced to laboratory equipment including: mass spectrometer and the accelerated solvent extractor (ASE).

Mpala Research Center, Laikipia, Kenya

Study Abroad Experience

February 2018 – May 2018

- Participated in three months of intensive environmental biology field courses such as "Communities and Conservation" and "Natural History of Mammals".
- Created and conducted several applicable research projects that were presented to conservancy managers, government officials, and community leaders. Examples include:

“Designing a mobile app to incentivize strategic crop choices by creating a niche market for ‘elephant-friendly’ products as a way to combat human-elephant conflict” and “Effects of megaherbivores on the vegetation and wildlife in Lewa Conservancy”.

- Studied under the guidance of renowned conservationists and scientists including Dr. Paula Kahumbu and Dr. Daniel Rubenstein.

Lamont-Doherty Earth Observatory, Columbia University, New York

Research Assistant (paid, part-time)

October 2017 – December 2017

- Worked in Dr. Steve Goldstein’s lab under the direction of postdoc Karla Knudson.
- Introduced to the basics of isotope geochemistry and foraminifera analysis.

Yale School of Forestry & Environmental Studies, New Haven

Unpaid Summer Research Intern (unpaid, part-time)

May 2017 – September 2017

- Worked in Dr. Graeme Berlyn’s Plant Ecology lab.
- Assisted on projects including assessing the effects of sound on photosynthesis and determining the consequences of nitrogen compounds in fertilizer on the growth of radishes.

Conference Abstracts and Presentations

76th Annual Northeast Fish & Wildlife Conference

Virtual Conference

April 2021

- **Hagani, J.S.**, Kross, S., Clark, M., Wynn-Grant, R., Blair, M. “Mapping and modeling human-black bear (*Ursus americanus*) interactions in the Catskills region of New York. Invited speaker at the special symposium: “Bear-Human Conflict Management in the Northeast”.

Student Conference on Conservation Science

American Museum of Natural History, New York, New York

October 2019

- **Hagani, J.S.**, Macey, S.K, Palmer, M.I., Foley, J., Seewagen, C. “Home ranges and movement patterns of wood turtles (*Glyptemys insculpta*) in Connecticut and the use of rarefaction for improving study design.” Poster presentation.

Published Papers and Manuscripts Reviewed

Scientific Publication

January 2024

- **Hagani, JS**, Takekawa, JY, Skalos, SM, Casazza, ML, Riley, MK, Estrella, SA, Barthman-Thompson, LM, Smith, KR, Buffington, KJ, and Thorne, KM (*In Press*). Application of lidar to assess the habitat selection of an endangered small mammal in an estuarine wetland environment. *Ecology and Evolution*.

Scientific Publication

August 2023

- Takekawa JY, **Hagani JS**, Edmunds TJ, Collins JM, Chappell SC, and Reynolds WH (2023). The sky is not the limit: use of a spray drone for the precise application of herbicide and control of an invasive plant in managed wetlands. *Remote Sensing* 15(15): 3845. <https://doi.org/10.3390/rs15153845>

Scientific Publication

June 2023

- **Hagani JS**, Takekawa JY, Chappell SC, Tanner RL, Ernst AR, and Kettenring KM (2023). A

remote sensing approach to assess the historical invasion of *Phragmites australis* in a brackish coastal marsh. *Frontiers in Ecology and Evolution* 11: 1171245.
<https://doi.org/10.3389/fevo.2023.1171245>

Scientific Publication

September 2021

- **Hagani JS**, Kross SM, Clark M, Wynn-Grant R, and Blair M (2021). Mapping and modeling human-black bear interactions in the Catskills region of New York using resource selection probability functions. *PLOS ONE* 16(9): e0257716.
<https://doi.org/10.1371/journal.pone.0257716>

Scientific Publication

August 2021

- **Hagani JS**, Macey SK, Foley JD, and Seewagen CL (2021). Movement ecology of the imperiled wood turtle (*Glyptemys insculpta*) in a lower Hudson River watershed. *Chelonian Conservation and Biology* 20(2): 281-289. <https://doi.org/10.2744/CCB-1490.1>

Proposal Review

April 2023

- Anonymous review for U.S. Fish and Wildlife Service

Manuscript Review

January 2023

- Anonymous review for *Chelonian Conservation and Biology*

Manuscript Review

June 2020

- Anonymous review for *Journal of Applied Ecology*

Manuscript Review

February 2020

- Anonymous review for *Journal Ecology and Evolution*

Grants, Fellowships, and Awards Received

Bentley Holden Scholarship at the Cary Institute of Ecosystem Studies (\$2,300)

Bentley Holden Fund

November 2020

- “Reducing Human-Black Bear Interactions in the Catskills through the Improved Education of Transient Visitors”

Earth Institute Travel Grant (\$750)

Columbia Earth Institute

March 2020

- “Predicting Hotspots of Human-Grizzly Bear Conflict in the Wild Passages Triangle of Montana”

Columbia E3B Research Grant (\$1,500)

Columbia University E3B Department

March 2020

- “Evaluating Ranchers’ Perceptions of Livestock Compensation Programs in the Western United States”

Catskills Research Fellowship (\$14,487)

Cary Institute of Ecosystem Studies

February 2020

- “Reducing Human-Black Bear Interactions in the Catskills through the Improved Education of Transient Visitors”