

# KRISTY M. FERRARO

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Greeley Memorial Laboratory

370 Prospect Street, New Haven, CT 06511

## EDUCATION

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<b>Yale University</b> School of the Environment, <i>PhD Candidate</i>	New Haven, CT 2018 - Present
<b>Vanderbilt University</b> Earth and Environmental Sciences, <i>Master of Science</i>	Nashville, TN 2016 - 2018
<b>Boston College</b> Environmental Geoscience and Philosophy, <i>Bachelor of Science</i>	Chestnut Hill, MA 2011 - 2015

## GRANTS, FELLOWSHIPS, AWARDS

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<b>Fellowships and Scholarships</b> [ <i>Total: \$178,000</i> ]	
NSF Graduate Research Fellowship, <i>National Science Foundation</i>	2017
Fulbright Student Research Fellow, <i>The Institute of International Education</i>	2015
The Seydel Award, <i>The Institute of International Education</i> - Declined	2015
<b>Grants</b> [ <i>Total: \$137,000</i> ]	
Doctoral Dissertation Improvement Award, <i>Yale Institute for Biospheric Studies</i> (\$5,000)	2021
LEAP Student Grant, <i>Yale Law, Animals, and Ethics Program</i> (co-awarded) (\$2,500)	2021
Kohlberg-Donohoe Research Fellowship, <i>Yale School of Forests</i> (\$5,000)	2021
Stable Isotope Matching Funds, <i>Yale Institute for Biospheric Studies</i> (\$1,500)	2021
Christine Stevens Wildlife Award, <i>Animal Welfare Institute</i> (\$15,000)	2020
NSF/GSA Student Research Grant, <i>Geological Society of America</i> (\$2,500)	2020
Research Tools and Instruments, <i>NSERC Canada</i> (co-awarded) (\$94,000)	2020
Research Fellowship Program, <i>Yale Institute for Biospheric Studies</i> (\$5,000)	2020
Grants in Aid of Research, <i>Sigma Xi</i> (\$1,000)	2020
Doctoral Pilot Award, <i>Yale Institute for Biospheric Studies</i> (\$3,000)	2019
GSA Student Research Grant, <i>Geological Society of America</i> (\$2,500)	2017
Tinker Travel Award, <i>The Tinker Foundation</i> (\$3,000)	2017
Graduate Student Travel Grant, <i>Vanderbilt University</i> (\$500)	2017
ACC-IAC Thesis Research Grant, <i>Boston College</i> (\$2,000)	2014
<b>Awards and Honours</b>	
Boston College Arts and Sciences Honors Program, <i>Boston College</i>	2015
Geosciences Honors Program, <i>Boston College</i>	2015
Philosophy Honors Program, <i>Boston College</i>	2015
Member of the Order of the Cross and Crown, <i>Boston College</i>	2015
Sophomore Scholar, <i>Boston College</i>	2013

## PEER-REVIEWED PUBLICATIONS

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\*Indicates shared first-authorship

5) Webber, Q.M.R., **K.M. Ferraro**, J.G. Hendrix, and E. Vander Wal. (2022). What do caribou eat? A review of the literature on caribou diet. *Canadian Journal of Zoology*.

4) **Ferraro, K.M.**, O.J. Schmitz, and M.A. McCary. (2021). Effects of ungulate density and sociality on landscape heterogeneity: a mechanistic modeling approach. *Ecography*.  
DOI: <https://doi.org/10.1111/ecog.06039>

- 3) Sommer, N.R. and **K.M. Ferraro**. (2021). An ethical framework for behavioural training in wildlife management. *Conservation Science and Practice*.  
DOI: <http://doi.org/10.1111/csp2.616>
- 2) **Ferraro, K.M.**, A.L. Ferraro, and N.R. Sommer. (2021). Challenges facing cross-disciplinary collaboration in conservation ethics. *Conservation Science and Practice*. 3.11, e523.  
DOI: <https://doi.org/10.1111/csp2.523>
- 1) Ellis-Soto, D.,\* **K.M. Ferraro**,\* M. Rizzuto, E. Briggs, J.D. Monk, and O.J. Schmitz. (2021). A methodological roadmap to quantify animal-mediated nutrient subsidies. *Journal of Animal Ecology*, 90.1, 1605-1622.  
DOI: 10.1111/1365-2656.13538

## PAPERS IN REVIEW OR REVISION

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Drafts available upon request

**Ferraro, K.M.**, M.S.P. Jorge, A. Keuroghlian. (*Submitted*). The role of frugivorous ungulates in forest nitrogen cycling.

## OTHER PUBLICATIONS

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Animals in the Driver's Seat: A Methodological Roadmap To Animal Mediated Nutrient Translocation. *Animal Ecology in Focus*. 2021.

Tips for fellowship applications. *N.R. Sommer's Ecology Blog*. 2021.

## PRESENTATIONS

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**Ferraro, K.M.** The role of caribou in nutrient redistribution, Max-Planck Yale Center 2021 Mini-Conference, New Haven, CT, 2021.

**Ferraro, K.M.**, O.J. Schmitz, M.A. McCary. The role of ungulate density and sociality on landscape nutrient redistribution, Yale School of the Environment Research Day, New Haven, CT, 2021.

**Ferraro, K.M.**, A.L. Ferraro, N.R. Sommer. The need for cross-disciplinary communication to inform conservation ethics, The New School, New York, 2021

**Ferraro, K.M.**, N.R. Sommer. A Call for a New Conservation Ethic in the Age of Climate Change. Animalhouse: Animals and Their Environs, The New School, New York, Cancelled, COVID-19.

**Barnes, K.M.** Investigating the Role of White-Lipped Peccaries in Nitrogen Cycling in the Cerrado of Brazil. *Poster*. Vanderbilt University Earth and Environmental Graduate Research Symposium, Nashville TN. 2017.

**Barnes, K.M.** Simulating Ungulate Impact in Forests: A Century-Based Model of White Lipped Pecary Presence in the Forests of the Cerrado, Brazil. *Poster*. Ecological Society of America, Portland OR. 2017.

**Barnes, K.M.** A Paleoclimate Reconstruction Using Coleoptera Remains Representing the Chelford Interstadial at Arclid Quarry, Cheshire. *Oral Presentation*. Boston College Department of Environmental Geoscience Undergraduate Research Symposium, Boston MA. 2015.

**Barnes, K.M.** Consideration For All Beings. *Oral Presentation*. Boston College Department of Philosophy Undergraduate Research Symposium, Boston MA. 2015.

## INVITED TALKS AND PANELS

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<b>The Association for Tropical Biology and Conservation, Virtual</b>	2021
Applying to Graduate School Seminar - Panelist	
<b>Behaviour, Ecology, &amp; Physiology seminar series, University of Bangor, UK</b>	2021
The role of ungulate density and sociality on landscape nutrient distribution	
<b>Vanderbilt University Latin American Studies Brazil Week, Nashville, TN</b>	2018
Investigating the Role of White-Lipped Peccaries in Nitrogen Cycling in the Cerrado of Brazil	
<b>University of Bern Peloclimate Group Seminar, Bern, CH</b>	2016
A Chironomid-inferred Holocene Temperature Reconstruction at Gouill Rion	

## INVITED PUBLIC TALKS

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Earth Day guest speaker, <i>Cheshire Academy, CT</i>	2020
Visiting scientist, <i>Georgia Aquarium, GA</i>	2020
Visiting scientist, <i>Boston Public Schools, MA</i>	2017
Department seminar, <i>Vanderbilt University, TN</i>	2017

## RESEARCH EXPERIENCE

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<b>Yale School of the Environment</b> <i>NSF Graduate Research Fellow, PhD Candidate</i>	New Haven, CT 2018 - Present
· Research on how ungulates act as nutrient vectors and impact soil carbon and nitrogen storage, especially in arctic and boreal ecosystems	
<b>Vanderbilt University Department of Earth and Environmental Sciences</b> <i>NSF Graduate Research Fellow, Masters Student</i>	Nashville, TN 2016- 2018
· Masters project exploring how ungulates impact nutrient cycling in the Cerrado of Brazil	
<b>Vanderbilt Women in Earth Science Science</b> <i>Research Assistant</i>	Nashville, TN 2017
· Comprehensive literature review on the impacts of implicit bias in student teaching evaluations supported by a Vanderbilt - sponsored by a Equality, Diversity, and Inclusion SEED Grant	
<b>University of Berne Department of Paleocology</b> <i>Fulbright Student Fellow</i>	Berne, Switzerland 2015-2016
· Created a high resolution chironomid-based Alpine paleoclimate reconstruction	
<b>Boston College Department of Earth and Environmental Science</b> <i>Undergraduate Thesis</i>	Chestnut Hill, MA 2014 - 2015
· Environmental Geoscience Honors Program Thesis: Reconstructing Paleoclimates of Cheshire, UK, Using Beetle Fossils	
<b>Boston College Department of Philosophy</b> <i>Undergraduate Thesis</i>	Chestnut Hill, MA 2014 - 2015
· Philosophy Honors Program Thesis: Consideration For All Beings: A Utilitarian Approach to the Treatment of Domesticated Non-Human Animals	
<b>University of Edinburgh School of Geosciences</b> <i>Atlantic Coast Conference-International Academic Collaborative Research Fellow</i>	Edinburgh, UK 2014
· Conducted a paleoclimate reconstruction using the Mutual Climatic Range Method	
<b>Boston College Department of Earth and Environmental Science</b> <i>Undergraduate Research Assistant</i>	Chestnut Hill, MA 2014
· Conducted field work to gather data on sediment formation in the Connecticut River	

## FELLOWSHIPS AND CERTIFICATES

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<b>Yale Law School</b> <i>Law, Ethics, and Animals Program Fellow</i>	2019-
<b>Yale Environmental Humanities Center</b> <i>Certificate in the Environmental Humanities</i>	

## RELEVANT WORK EXPERIENCE

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<b>Yale College Fellowships Office</b> <i>National Fellowships Graduate Assistant</i>	New Haven, CT 2019 - present
· Review and edit over 100 applications for fellowships including Fulbright, Truman, Marshall, Mitchell, Rhodes, Soros, and internal Yale fellowships each year	
· Serve on interview panels for various fellowships including Fulbright and Soros	
· Compose and edit campus endorsement letters for Marshall, Mitchel and Rhodes Fellowships	
· Provide general advice to applicants regarding fellowship choice and application	
· Helped improved Yale College's rank in the Top Producing Institutions for Fulbright U.S. Students list from 15 <sup>th</sup> to 5 <sup>th</sup>	

**Yale Analytical and Stable Isotope Center**

New Haven, CT

*Research Assistant*

2019

- Prepared and ran samples for stable isotope analysis on an Costech ECS 4010 Elemental Analyzer with ConFlo III interface

**TEACHING EXPERIENCE**

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**Teaching Assistantships**

- Pests, Parasites, and Pathogens, *Yale School of the Environment* Spring, 2019
- Oceanography, *Vanderbilt University* 2016, 2017
- Paleoclimate Reconstruction Methods, *University of Bern* Spring, 2016

**Course Mentor**

- Undergraduate independent study, *Vanderbilt University* Spring, 2018
- High School independent study, *Vanderbilt University* Spring, 2018

**Disabilities Tutor**

- Department of Environmental Geosciences, *Boston College* 2012

**Guest Lectures**

- Ecological Applications of Agent Based Modelling, *Vanderbilt University* 2021
- Introduction to LaTeX, *Yale School of the Environment* 2020
- Ethical Approaches to Conservation, *Vanderbilt University* 2018
- Paleoclimate Reconstruction Methods using Chironomids, *University of Bern* 2016

**Workshops**

- Introduction to LaTeX, *Yale School of the Environment R-rodeo* 2020
- Introduction to IBMs using NetLogo, *Yale School of the Environment R-rodeo* 2020
- Safety in the Field - workshop organizer, *Yale School of the Environment* 2019

**MENTORSHIP**

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**Research Mentorship**

- Yale College, Undergraduate Thesis Research (1) 2020-
- Vanderbilt University, Undergraduate Thesis Research (1) 2018
- Nashville Public Schools, Senior Research Project (1) 2018

**Professional Mentorship**

- Yale School of the Environment, PhD Peer Mentoring Program (1) 2020-
- Yale University, Women in Science Undergraduate Mentee-Match (2) 2018-
- Yale College, Fellowship Office Graduate Affiliate 2018-
- Boston College, Women's Center Mentoring Program (2) 2018-

**LEADERSHIP AND OUTREACH**

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**Yale Anti-Racism Network**

2020-

- Member of the Yale Anti-Racism Network, a collective of PhD students and Post-Docs working to promote diversity within the School of the Environment

**Yale Graduate Student Disability Alliance**

2020-

- Member of the Yale Graduate Student Disability Alliance, which works to promote fellowship and awareness regarding disabilities within the Graduate School

**Faculty Search Committee**

2020

- Student representative and member of a search committee for a new faculty member in the Yale School of the Environment in Wildlife and Land Management

**Yale School of the Environment Doctoral Committee Founder**

2019-2020

- Led the formation of an independent YSE PhD committee of 12 students to represent the needs specific to the PhD community
- Advocated for students educational, financial, and personal support due to COVID-19 disruptions

- Yale School of the Environment BIOMES Committee** 2019-2020  
Co-organized the YSE's weekly all-school seminar, which included contacting speakers, organizing visits, and creating a lecture series that is meaningful and interesting to all members of the school's community
- Yale School of the Environment Student Activities Committee** 2019-2020  
Elected PhD representative of the YSE Student Activities Committee serving as a liaison between the PhD students and the larger YSE community
- Yale School of the Environment Student Interest Group Leader** 2018-2019  
Leader of RODEO, a weekly meeting for doctoral students to learn R and troubleshoot coding problems
- Yale Pathways to Science** 2019-  
Presenter in the Yale Pathways to Science Environmental Cafe (2021)  
Organizer of the Yale Pathways to Science Environmental Cafe and Research Day which brings New Haven high school students to experience a research conference (2019)
- Vanderbilt Women in Earth Science** 2016-2018  
Events coordinator for the Women in Earth Science group at Vanderbilt University, a chapter of American Women in Geoscience

## PROFESSIONAL SERVICE

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**Ad Hoc Reviewer:** Ecological Applications, Oecologia, Journal of Animal Ecology, Ecology and Evolution

**Conference Volunteer:** Ecological Society of America 2018

**Talks Organized:**

- Black Veganism: Race, Animals, and Ethics with Lindgren Johnson and Sly Ko 2021
- Through the Prism of Individual Differences: Integrating the Geometry of the Selfish Herd and the Ideal Free Distribution Using Caribou Calving Aggregations with Eric Vander Wal 2020
- Cutting it close in the Canadian boreal forest: how logging is eroding the Great Northern Forest and fueling the climate and biodiversity crises with Jennifer Skene 2020

## PROFESSIONAL DEVELOPMENT

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### Short Courses

- Yale Interdisciplinary Center for Bioethics Summer Course New Haven, CT, 2020  
Climate Change Ethics and Animal Ethics Seminars
- Metabarcoding of Trophic Interactions Innsbruck, Austria, 2019
- Survivor's Guide to Stable Isotope Ecology Siracusa, Italy, 2017

### Workshops

- Anti-racism Learning Community for Graduate Students and Postdocs New Haven, CT, 2020
- Incorporating Environmental Justice into Teaching Symposium New Haven, CT, 2019
- Diversity in Academia Workshop New Haven, CT, 2019
- STEM Policy and Advocacy: Making Your Voice Heard Nashville, TN, 2017

## TECHNICAL SKILLS

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**Programming Languages:** R, MATLAB, NetLogo

**Software & Tools:** LaTeX, CENTURY, Microsoft Office, ArcGIS

**Research:** VHF telemetry and triangulation, ungulate calf capture, denitrification assays, carbon mineralization, soil processing, chironomid identification

**Instrumentation:** IRGA, Elemental Analyser with Conflow III, Isotope-radio mass spectrometry

## SELECT MEDIA COVERAGE

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**Yale Law School LEAP Q&A** Kristy Ferraro Ph.D. 24 on How Caribou Impact Ecosystems and the Ethics of Wildlife Management

**Yale School of the Environment Canopy** In Defence of Predators by Josh Anusewicz

## PROFESSIONAL AND SCHOLASTIC MEMBERSHIPS

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Women in Science at Yale

Yale Animal Ethics Study Group

Association of Women in Geosciences

Ecological Society of America

Geological Society of America