

Jacob A. Harvey

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School of Natural Resources
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Education

Doctor of Philosophy

May 2029

University of Nebraska – Lincoln

- Major: Natural Resource Sciences
- Specialization: Applied Ecology
- Major Advisor: Dr. John F. Benson
- GPA: 4.0
- School of Natural Resources Othmer Fellow

Dissertation: Spatial Ecology and Predator-Prey Interactions of Wolves in the Yukon-Charley Rivers National Preserve, Alaska, USA

Master of Science

May 2025

University of Nebraska - Lincoln

- Major: Natural Resource Sciences
- Specialization: Applied Ecology
- Major Advisor: Dr. John F. Benson
- GPA: 4.0
- School of Natural Resources Meritorious Graduate Student Award

Thesis: Spatial Ecology and Predator-Prey Interactions of Mountain Lions in California's San Francisco North Bay

Bachelor of Science

December 2020

Paul Smith's College

- Major: Fisheries & Wildlife Sciences
- GPA: 4.0
- *Summa Cum Laude* graduate honors
- 7x Adirondack Scholar (awarded to Paul Smith's College students with a GPA of 3.8 or higher)
- 7x Dean's List (awarded to Paul Smith's College students with a GPA of 3.3 or higher)
- Provost Award Recipient (only award given at Paul Smith's College commencement, awarded to a single student of high academic standing and dedication)

Peer-Reviewed Publications

ORCID ID: 0009-0005-4951-8614

Harvey, J. A., Martins, Q., Dougherty, K. D., Hettena, A. M., Garcelon, D. K., and Benson, J. F. 2025. Functional Habitat Characteristics Influencing Spatial Variation in Mountain Lion Predation in a Human-dominated Landscape. *Biological Conservation* 302: 110975.

Harvey, J. A., Martins, Q., Benson, J. F. 2024. The Impact of Sublethal Injuries on Mountain Lion Predation and Spatial Ecology. *Canadian Wildlife Biology and Management* 13: 82-101.

Manuscripts in Prep

Martins, Q. M., **Harvey, J. A.,** Martin, N., and Benson, J. F. Walk Through to a New Era: Electronic Walk-Through Cage Trap for Large Felid Capture. Intended for *Wildlife Society Bulletin* (analysis complete, drafting manuscript)

Harvey, J. A., Martins, Q. M., Garcelon, D. K., and Benson, J. F. Mountain Lion Prey Use and Black-tailed Deer Kill Rates Along a Gradient of Human Disturbance. Intended for *Journal of Wildlife Management* (analysis complete, drafting manuscript).

Harvey, J. A., Martins, Q. M., Garcelon, D. K., and Benson, J. F. Scale-dependent Strategies by Mountain Lions Suggest Limitations of the Limiting Factors Hypothesis for Large Carnivores in Human-dominated Landscapes. Intended for *Ecological Applications* (analysis complete, manuscript drafted).

Harvey, J. A., Martins, Q. M., Garcelon, D. K., Dougherty, K. D., and Benson, J. F. Nested Forage-Risk Tradeoffs for a Large Carnivore Preying on Wild Prey and Livestock. Intended for *Ecology* (completing analysis, drafting manuscript).

Conference Presentations

Harvey, J. A., Martins, Q. E., Dougherty, K. K., Hettena, A. M., Garcelon, D. K., Benson, J. F. 2025. Functional Habitat Characteristics Influencing Spatial Variation in Mountain Lion Predation in a Human-dominated Landscape. Wildlife Society, Edmonton, AB (Oral).

Harvey, J. A., Martins, Q. E., Garcelon, D. K., Benson, J. F. 2024. Scale-dependent Responses to Limiting Factors by Mountain Lions in a Human-dominated Landscape. Wildlife Society, Baltimore, MD (Oral).

Harvey, J. A., Martins, Q. E., Garcelon, D. K., Benson, J. F. 2024. Scale-dependent Responses to Limiting Factors by Mountain Lions in a Human-dominated Landscape. CA Mtn. Lion Sci. Working Group, Sacramento, CA (Oral).

- Harvey, J. A.,** Martins, Q. E., Garcelon, D. K., Benson, J. F. 2023. Mountain Lion Prey Use and Black-tailed Deer Kill Rates along a Gradient of Human Disturbance. Wildlife Society, Louisville, KY (Oral).
- Harvey, J. A.,** Martins, Q. E., Garcelon, D. K., Benson, J. F. 2023. Mountain Lion Prey Use and Black-tailed Deer Kill Rates along a Gradient of Human Disturbance. CA Mtn. Lion Sci. Working Group, Sacramento, CA (Oral).
- Harvey, J. A.,** Martins, Q. E., Dougherty, K. D., Garcelon, D. K., Benson, J. F. 2022. Resource Selection by Mountain Lions Preying on Black-tailed Deer in a Human-dominated Landscape. Wildlife Society, Spokane, WA (Oral).
- Harvey, J. A.,** Martins, Q. E., Dougherty, K. D., Garcelon, D. K., Benson, J. F. 2022. Resource Selection by Mountain Lions Preying on Black-tailed Deer in a Human-dominated Landscape. CA Mtn. Lion Sci. Working Group, Davis, CA (Oral).
- Harvey, J. A.,** Martins, Q. E., Dougherty, K. D., Garcelon, D. K., Benson, J. F. 2022. Resource Selection by Mountain Lions (*Puma concolor*) at Feeding Sites in relation to Development, Fencing, and Natural Landscape Features. Western Assn. of Fish & Wildlife Agencies, Virtual (Poster).
- Harvey, J. A.,** Benson, J. F., Martins, Q. E., Garcelon, D. K. 2022. The Role of Fencing and other Anthropogenic Structures in Mountain Lion (*Puma concolor*) Feeding Ecology. Wildlife Society Western Section, Virtual (Poster).
- Harvey, J. A.,** Garcelon, D. K., Martins, Q. E. 2021. North Bay Mountain Lion Research Project Update. CA Mtn. Lion Sci. Working Group, Davis, CA (Oral).
- Harvey, J. A.** 2021. Youth Wildlife Conservation Experience Keynote Speech. Wild Sheep Foundation Sheep Week, Virtual (Oral).

Selected Invited Seminars

- Harvey, J. A.** 2025. Spatial Ecology and Predator-Prey Interactions of Mountain Lions in California's San Francisco North Bay. Foundations in Fisheries & Wildlife Sciences Guest Presentation, Paul Smith's College (Paul Smiths, NY).
- Harvey, J. A.,** Martins, Q. E., Dougherty, K. D., Garcelon, D. K., and Benson, J. F. 2024. The Influence of Stalking Cover, Habitat Productivity, and Human Disturbance on Mountain Lion Resource Selection at Feeding Sites. University of Nebraska School of Natural Resources Graduate Seminar Series. (Lincoln, NE)
- Harvey, J. A.,** and Martins, Q. E. 2023. Living with Mountain Lions. Sonoma State University Biology Colloquium. (Sonoma, CA)
- Harvey, J. A.,** and Martins, Q. E. 2023. Living with Mountain Lions. Rotary Club of Sebastopol Keynote Presentation. (Sebastopol, CA)
- Harvey, J. A.** 2021. Wild Sheep Foundation's Youth Wildlife Conservation Experience Keynote Presentation. (Reno, NV)

Professional Experience

Graduate Research Assistant (Ph.D): September 2025 – present
University of Nebraska – Lincoln, NE

- Recipient of the School of Natural Resources Othmer Fellowship

Graduate Research Assistant (MS): January 2022 – May 2025
University of Nebraska – Lincoln, NE

- Recipient of the National Science Foundation's Graduate Research Fellowship (GRFP).
- Captured mountain lions to collect biological samples and deploy GPS telemetry collars.
- Evaluated mountain lion responses to landcover features at locations where they killed and consumed black-tailed deer using resource selection functions.
- Evaluated multi-scale resource selection by mountain lions with respect to responses to factors most likely to limit fitness using 2nd and 3rd order resource selection functions.
- Quantified mountain lion kill rates and home range sizes and analyzed changes along gradients of human disturbance.

Wildlife Biologist: May 2021 – December 2021
Institute for Wildlife Studies – North Bay, CA

- Captured and collared 20+ mountain lions, investigated >1,000 suspected mountain lion feeding sites, conducted outreach and education, and mitigated human-wildlife conflict.

Biological Aide: January 2021 – April 2021
Pennsylvania Game Commission – Coudersport, PA

- Captured white-tailed deer using clover traps and rocket nets, telemetry, conducted roadside population counts using FLIR thermal imaging cameras.

Scientific Aide: May 2020 – August 2020
California Department of Fish and Wildlife – Bishop, CA

- Investigated endangered Sierra Nevada bighorn sheep (SNBS) mortalities, conducted SNBS herd population counts, investigated mountain lion kill sites, captured and collared mountain lions, SNBS and mountain lion telemetry.

Undergraduate Researcher: May 2019 – August 2019
University of Washington & National Science Foundation – Winthrop, WA

- Used foothold traps to capture bobcats and coyotes, investigated wolf and mountain lion kill sites, investigated bobcat and coyote den sites, telemetry.

Field Technician: May 2018 – August 2018
US. Dept. of the Interior – National Elk Refuge – Jackson, WY

- Maintained an irrigation system across 4,000+ acres of elk wintering habitat, removed elk and mule deer lymph nodes for CWD testing, participated in wolf den surveys.

Teaching Experience

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- **Supplementary Instruction Leader** 2019 – 2020
 - Paul Smith's College Academic Success Center
 - Provided homework help, re-explained lecture material, and led exam review sessions for up to 55 students in Chemistry 1 (CHM141)
 - **Peer Tutor** 2018 - 2020
 - Paul Smith's College Academic Success Center
 - Led weekly one-on-one sessions to reiterate lecture materials, enhance study methods, and review exam material for Introduction to Fisheries & Wildlife Management (FWS101), General Ecology (BIO210), Chemistry 1 (CHM141), and Chemistry 2 (CHM142)

Scientific Service

Peer reviewer:

- *Biological Conservation* – April 2024, September 2025
- *Ecology* – March 2025
- *Ecological Applications* – February 2025
- *Canadian Wildlife Biology & Management* – August 2024
- *Biology Letters* – March 2024

Grants & Scholarships

September 2025	
Wildwood Trust Scholarship	\$1,000
July 2025	
The Wildlife Society Travel Grant	\$700
May 2025	
School of Natural Resources Othmer Fellowship	\$24,000
March 2025	
School of Natural Resources Meritorious Graduate Student Award	\$500
September 2023	
Larrick Graduate Student Travel Support Fund	\$350
September 2022	
Wildwood Trust Scholarship	\$500

April 2022		
National Science Foundation Graduate Research Fellowship		\$138,000
May 2020		
Paul Smith's College Wildlife Travel Award		\$1,000
May 2020		
Wild Sheep Foundation Life Member Fund Scholarship		\$5,000
October 2018		
Sterling Tomkins Endowment for International Study		\$1,500
June 2017		
United States Marine Corp Scholar Athlete		Non-monetary

Selected Volunteer Experience

September 2023 – May 2025

Letters to a Pre-Scientist – Virtual

- Participated in a pen-pal program with elementary students from underrepresented communities to inspire students to explore a future career in STEM.

February 2022, 2024, 2025

Nebraska Game and Parks Commission – Chadron, NE

- Collected, organized, and processed blood, parasite, hair, and stool samples from elk.

August 2020

Wyoming Wild Sheep Foundation – Rawlins, WY

- Assisted in construction of a guzzler (artificial water source) for Rocky Mountain bighorn sheep in the Seminoe Mountains.

November 2019

Pennsylvania Game Commission Bear Check Station – Tidioute, PA

- Assisted in documenting all bear harvests within a specified unit. Extracted teeth, noted parasitic infection, and assessed body condition.

September 2019

New York State Department of Environmental Conservation – Chazy, NY

- Used a cannon net to capture and band wood ducks at the Lake Alice Wildlife Management Area.

August 2019

Washington Department of Fish and Wildlife – Port Angeles, WA

- Transported invasive mountain goats in refrigerator trucks from the Olympic Peninsula to their native range in the North Cascades Mountains.

Professional and Academic Memberships

2024 – present

The Wild Felid Research and Management Association

2017 – present

The Wildlife Society

2018 – 2021

The Wild Sheep Foundation

2018 – 2020

Paul Smith's College Chapter of the National Society of Leadership and Success

2017 – 2020

Paul Smith's College Student Chapter of The Wildlife Society

- 2020 – Secretary

Selected Courses and Certifications

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| • American Red Cross Adult and Pediatric First AID/CPR/AED Certified | 2021 |
| • PA DCNR Bureau of Forestry Snowmobile Safety Training Completion | 2021 |
| • Recreational Off-Highway Vehicle Association E-Course Completion | 2018 |
| • NSC Defensive Driving Course 10 th Edition R Completion | 2018 |
| • ATV Safety Institute E-Course Completion | 2018 |
| • Wildlife Leadership Academy PA Bucktails Camp Graduate | 2015 |
| • Pennsylvania Game Commission Hunter Safety Certification | 2014 |

Notable Academic Coursework

Undergraduate

- BIO380 – International Winter Ecology
 - Worked alongside collaborators from Moscow State University at the Zvenigorod Biological Station to better understand physiological adaptations to cold climates within the disciplines of botany, vertebrate zoology, hydrobiology, and entomology.
- FWS470 – Wildlife Management
 - Satisfied my senior capstone requirement by creating a management plan for wolverines in the North Cascades of Washington.