

Brooks A. Kohli

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EDUCATION

PhD 2019 **Earth and Environmental Sciences**, Department of Natural Resources & the Environment, University of New Hampshire, Durham, NH
MS 2013 **Biology**, Department of Biology, University of New Mexico, Albuquerque, NM
BS 2010 **Biological Sciences; Environmental Studies Certificate**, Honors Tutorial College, Ohio University, Athens, OH

PROFESSIONAL APPOINTMENTS

2024-present **Assistant Professor of Instruction**, Department of Biological Sciences, Ohio University, Athens, OH
2022-2023 **Assistant Professor of Instruction**, Honors Tutorial College, OHIO Honors Program, Ohio University, Athens, OH
2021-2022 **Assistant Professor of Biology**, Department of Biology and Chemistry, Morehead State University, Morehead, KY
2019-2021 **Postdoctoral Scholar**, Department of Evolution, Ecology and Organismal Biology, Ohio State University, Columbus, OH
2014-2019 **Graduate Research and Teaching Assistant**, Department of Natural Resources and the Environment, University of New Hampshire, Durham, NH
2014 **Wildlife and Vegetation Technician**, Massachusetts Army National Guard, Joint Base Cape Cod, Sandwich, MA
2013-2014 **Seasonal Resource Assistant**, Connecticut Department of Energy and Environmental Protection, Inland Fisheries Division, Harwinton, CT
2013 **Pygmy Rabbit Reintroduction Project Technician**, Washington Department of Fish and Wildlife, Ephrata, WA
2012 **Fisheries Technician**, Pacific States Marine Fisheries Commission/Tacoma Water Utility, Green River, WA
2010-2012 **Graduate Teaching Assistant**, Biology Department, University of New Mexico
2010-2011 **Graduate Curator**, Museum of Southwestern Biology, Division of Mammals, University of New Mexico

TEACHING EXPERIENCE

Ohio University

Conservation Conundrums (HC 2905), Instructor (Fall 2023)

Mammalogy (BIOS 4740), Instructor (Spring 2023)

Introduction to Ethical Research & Creative Activity (HC 2610), Co-instructor (Spring 2023)

OHIO Honors Engagement Lab (HC 2401), Instructor (Spring 2023)

Introduction to the OHIO Honors Program (HC 2400), Instructor (Fall 2022, 2023)

One Health in Modern Society (HC 2905), Co-instructor (Fall 2022)

Morehead State University

Conservation Biology (BIOL 356), Instructor (Spring 2022)

Environmental Biology (BIOL 155), Instructor (Fall 2021, Spring 2022)

Principles of Biology Lab (BIOL 171L), Instructor (Fall 2021, Spring 2022)
Mammalogy (BIOL 438/638), Instructor (Fall 2021)

Ohio State University

Frontiers in Measuring Biodiversity graduate seminar, (EEOB 8896), Instructor (Fall 2020)

University of New Hampshire

Biogeography, Guest Lecturer (Spring 2019)

Mammalogy, Teaching Assistant & Guest Lecturer (Spring 2018)

Inventory and Monitoring of Ecological Communities, Guest Lecturer (Fall 2016, 2018)

General Ecology, Teaching Assistant (Fall 2014, Spring 2015)

University of New Mexico

General Vertebrate Zoology, Teaching Assistant (Spring 2012)

Introductory Cell Biology, Teaching Assistant & author of Introductory Biology Series
Statistics Primer (Fall 2011)

Mammalogy, Teaching Assistant (Fall 2010)

MENTORING

Thesis Committee Member

Alyssa Semerdjian – Oregon State University (Ph.D. student, ongoing)

Daniel Fleenor – Morehead State University (M.S. student, ongoing)

Morehead State University

2021-present **Daniel Fleenor**, M.S. student – Intraspecific variation in a morphological index
of water balance in small mammals of eastern North America

2021-2022 **Robert Gibson**, Undergraduate researcher – Small mammal specimen
preparation and kidney index data collection

Ohio State University

2020-2021 **Reymond Miyajima**, Undergraduate researcher – Worldwide elevational
gradients of mammal diversity.

University of New Hampshire

2016-2018 **Jessica Guptill**, Undergraduate researcher, UNH Hamel Center Undergraduate
Research Award recipient – Craniodental measurements as indicators of Great
Basin small mammal diet groups.

2017-2018 **Joseph Poggi**, Undergraduate researcher – Identifying ecomorphological traits for
small mammal functional diversity analyses: hair density.

2015, 2016 **Field Crew Leader** – Trained and supervised seven undergraduate field assistants
during field research in remote areas of Nevada.

University of New Mexico

2011-2012 **Kelly Speer**, Undergraduate Opportunities (UnO) Program mentee – Systematics
of red-backed voles (*Myodes*) and related genera.

2010-2011 **Graduate Curator**, Museum of Southwestern Biology Division of Mammals – Supervised and trained undergraduate employees and volunteers in field methods and specimen curation and preparation.

PUBLICATIONS

*Undergraduate mentee

Pre-prints

Nations, J.A., **Kohli, B.A.**, Handika, H., Achmadi, A.S., Polito, M.J., Rowe, K.C., & Esselstyn, J.A. 2022. Trait-specific patterns of community ecospace occupancy in an insular mammal radiation. *In Revision*. [bioRxiv hyperlink](#)

Peer-Reviewed Papers

12. Balk, M.A. et al. (19 of 35 coauthors). 2022. A solution to the challenges of interdisciplinary aggregation and use of specimen-level trait data. *iScience* 25: 105101.
11. **Kohli, B.A.**, R.J. Miyajima* and M.A. Jarzyna. 2022. Elevational diversity patterns of rodents differ between wet and arid mountains. *Global Ecology and Biogeography* 31: 1726-1740.
10. Kays R., M. Lasky, M.L. Allen, R. Dowler, M.T.R. Hawkins, A.G. Hope, **B.A. Kohli**, V.L. Mathis, B. McLean, L.E. Olson, C.W. Thompson, D. Thornton, J. Widness & M.V. Cove. 2022. Which mammals can be identified from camera traps and crowdsourced photographs? *Journal of Mammalogy* 103: 767-775. [Editor's Choice].
9. **Kohli, B.A.**, R.D. Stevens, E.A. Rickart and R.J. Rowe. (2021). Mammals on mountainsides revisited: trait-based tests of assembly reveal the importance of abiotic filters. *Journal of Biogeography* 48: 1606-1621.
8. **Kohli, B.A.** and M.A. Jarzyna. (2021). Pitfalls of ignoring trait resolution when drawing conclusions about ecological processes. *Global Ecology and Biogeography* 30: 1139-1152.
7. Colella, J.P., R.B. Stephens, M.L. Campbell, **B.A. Kohli**, D.J. Parsons and B.S. McLean. (2021). The Open-Specimen Movement. *BioScience* 71: 405-414.
6. **Kohli, B.A.** and R.J. Rowe. (2019). Beyond guilds: The promise of continuous traits for mammalian functional diversity. *Journal of Mammalogy* 100: 285-298. [Editor's Choice].
5. **Kohli, B.A.**, D.A. Charlet and R.J. Rowe. (2019). Small mammal communities in Nevada's Swamp Cedar woodlands, a globally unique and imperiled habitat. *The Southwestern Naturalist* 64: 1-7. [Issue Cover].
4. **Kohli, B.A.**, R.C. Terry and R.J. Rowe. (2018). A trait-based framework for discerning drivers of species co-occurrence across heterogeneous landscapes. *Ecography* 41: 1921-1933. [Editor's Choice].
3. White, M.M., **B.A. Kohli**, and P.E. Converse. (2018). Historical and contemporary gene flow and the genetic structure of muskellunge in the Ohio River drainage. *Transactions of the American Fisheries Society* 147:1067-1077.
2. **Kohli, B.A.**, V.B. Fedorov, E. Waltari and J.A. Cook. (2015). Phylogeography of a Holarctic rodent (*Myodes rutilus*): testing high-latitude biogeographical hypotheses and the dynamics of range shifts. *Journal of Biogeography* 42: 377–389.
1. **Kohli, B.A.**, K.A. Speer*, C.W. Kilpatrick, N. Batsaikhan, D. Damdinbazar and J.A. Cook. (2014). Multilocus systematics and non-punctuated evolution of Holarctic Myodini (Rodentia: Arvicolinae). *Molecular Phylogenetics and Evolution* 76: 18-29.

Reports

1. Matocq, M.D., R.J. Rowe and **B.A. Kohli**. (2017). Monitoring Small Mammal Communities in Nevada: Elevational Transects as Indicators of Biotic Response to Environmental Change. Report submitted to the Nevada Department of Wildlife. December 2017.

GRANTS

2021	Instructional Equipment Grant , Morehead State University, \$2,500
2018-2019	Conference Travel Award , UNH Graduate School, \$400
2018	Farrington Fund , UNH NREN Department, \$750
2016	Grant-In-Aid of Research , American Society of Mammalogists, \$1,500
2016	Summer Award for Upper Division and Graduate Students , Brigham Young University Charles Redd Center for Western Studies, \$1,500
2015	Student Support Fund , UNH NRESS Ph.D. Program, \$1,000
2012	Research Project & Travel Grant , UNM Office of Graduate Studies, \$800
2011-2012	Research Grant , UNM Biology Graduate Student Association, \$1,150
2011	Research Grant , UNM Graduate and Professional Students Association, \$800

FELLOWSHIPS, HONORS, AND AWARDS

2018	ASM Fellowship , American Society of Mammalogists
2018	Golden Ginkgo (Best Presentation) , UNH NREN Department Seminar
2013	Annie M. Alexander Honorarium , American Society of Mammalogists
2011	Caughran Endowed Scholarship , UNM Biology Department
2008-2010	Hollings Scholar , National Oceanic and Atmospheric Administration (NOAA)
2010	Outstanding Biological Sciences Graduating Senior , Ohio University

SELECTED PRESENTATIONS

Graduate student * Undergraduate mentee

- Fleenor, D.[#], R. Gibson*, R.B. Stephens and **B.A. Kohli**. Variation in an essential trait among populations of four widespread small mammal species. November 2022. Kentucky Academy of Science, Morehead, KY.
- Kohli, B.A.** Aridity effects on rodent elevational diversity patterns: Implications for global change. June 2022. American Society of Mammalogists. Tucson, Arizona. (Invited Symposium Talk, Symposium Title: Mammal Diversity in Dynamic Landscapes)
- Kohli, B.A.**, R.J. Miyajima* and M.A. Jarzyna. June 2022. Aridity emerges as the main factor driving variation in rodent diversity across 49 elevational gradients. International Biogeography Society Hybrid Meeting, Vancouver, Canada.
- Kohli, B.A.** and M.A. Jarzyna. August 2021. Improving trait data resolution to realize the promise of the functional trait revolution. Ecological Society of America, Virtual. (Invited Symposium Talk).
- Kohli, B.A.**, R.J. Miyajima* and M.A. Jarzyna. June 2021. Worldwide patterns of rodent functional and phylogenetic diversity on elevational gradients. American Society of Mammalogists, Virtual.
- Kohli, B.A.** September 2020. Trait-based mammalian community dynamics: from local changes to large-scale patterns. Department of Evolution, Ecology, and Organismal Biology, The Ohio State University, Columbus, OH.

- Kohli, B.A.** June 2019. Mammals on mountainsides revisited: functional diversity gradients and change in Great Basin small mammal communities. American Society of Mammalogists, Washington, D.C. (ASM Fellowship Award Talk).
- Taylor, D.S., **B.A. Kohli**, R.J. Rowe and R.C. Terry. June 2019. Isotopic niche partitioning among antagonistic pocket mice: how persistent is the ghost of competition past? American Society of Mammalogists, Washington, D.C.
- Kohli, B.A.**, R.C. Terry and R.J. Rowe. August 2018. A trait-based framework for discerning drivers of species co-occurrence across heterogeneous landscapes. Ecological Society of America, New Orleans, Louisiana.
- Kohli, B.A.** and R.J. Rowe. June 2018. Towards improved functional trait information for small mammals. American Society of Mammalogists, Manhattan, Kansas.
- Kohli, B.A.**, D.A. Charlet, and R.J. Rowe. June 2018. Small mammal communities in Nevada's swamp cedar woodlands, a globally unique and imperiled habitat. American Society of Mammalogists, Manhattan, Kansas.
- Guptill, J.L.*, **B.A. Kohli** and R.J. Rowe. April 2017. Testing the utility of cranial morphology in refining diet group classifications of rodents. University of New Hampshire Undergraduate Research Conference.
- Kohli, B.A.**, E.A. Rickart, and R.J. Rowe. January 2017. Small mammal community assembly along elevational gradients: insights from a functional perspective on co-occurrence patterns. International Biogeography Society, Tucson, Arizona.
- Kohli, B.A.**, E.A. Rickart, and R.J. Rowe. June 2016. Temporal patterns of species co-occurrence along a climate and habitat gradient. American Society of Mammalogists, Minneapolis, Minnesota.
- Rapier, B.C.*, J.L. Malaney, **B.A. Kohli**, M.A. Hobbs*, L.P. Smith*, and M.D. Matocq. June 2016. New records and two possible local extinctions from a sky island in the Great Basin. American Society of Mammalogists, Minneapolis, Minnesota.
- Kohli, B.A.** June 2013. Phylogeography of a Holarctic rodent (*Myodes rutilus*): Testing high-latitude biogeographic hypotheses and the dynamics of range shifts. American Society of Mammalogists, Philadelphia, Pennsylvania (Annie M. Alexander Award Talk).
- Kohli, B.A.**, V.B. Fedorov, and J.A. Cook. July 2012. Range-wide phylogeography of a Holarctic mammal: Testing high-latitude biogeographic hypotheses. First Joint Congress on Evolutionary Biology, Ottawa, Ontario, Canada.
- Kohli, B.A.**, V. B. Fedorov, and J.A. Cook. June 2012. A novel biogeographic pattern for a Holarctic mammal revealed by the range-wide phylogeography of *Clethrionomys rutilus*. American Society of Mammalogists, Reno, Nevada.
- Speer, K.A. *, **B.A. Kohli**, N. Batsaikhan, D. Damdinbaza, and J.A. Cook. June 2012. Clarifying the diversity of montane voles (Genus: *Alticola*) in Mongolia. American Society of Mammalogists, Reno, Nevada.
- Kohli, B.A.** and M.W. White. February 2010. Stock structure of hatchery and native muskellunge. Ohio Fish and Wildlife Conference, Columbus, Ohio.

OTHER RESEARCH EXPERIENCE

- 2012 **Field Researcher**, Small mammal and bat surveys for Tropical Diversity Field Methods course, Museum of Southwestern Biology (MSB), University of New Mexico, La Amistad International Park, Panama

- 2011 **Field Researcher**, Southeast Alaska Alpine Survey and ISLES small mammal inventory projects, Museum of Southwestern Biology, & Alaska Fish & Game, Alexander Archipelago, Alaska
- 2008-2010 **Genetics Laboratory Research Assistant and Senior Honors Thesis**, Dr. Matthew White's Lab, Ohio University
- 2009 **Hollings Scholar Internship**, NOAA, National Marine Fisheries Service, Southwest Fisheries Science Center, Santa Cruz, CA
- 2008 **Global Studies in Plant Biology Field Course (Ohio U.)**, Malaysian Borneo
- 2007 **Turtle Ecology Field Research Assistant**, Dr. Willem Roosenburg's Lab, Maryland & Ohio field sites, Ohio University

PROFESSIONAL SOCIETY MEMBERSHIP

American Society of Mammalogists, International Biogeography Society, Ohio Wildlife Management Association

PROFESSIONAL SERVICE

- 2021-2023 **Invited Workshop Participant**, NARLEE (North American Rodents-Landscapes, Ecology, Evolution) RCN
- 2018-present **Biodiversity Committee; Informatics Committee; Program Committee**, American Society of Mammalogists
- 2019-2022 **Invited Workshop Participant**, Functional Trait Resource for Environmental Studies (FuTRES), annually
- 2021 **Symposium Co-organizer** (w/ Tara Smiley), "Frontiers in Trait-based Mammalian Ecology", American Society of Mammalogists Meeting
- 2014 **Contributor**, New Hampshire Fish & Game Wildlife Action Plan, Species of Greatest Conservation Need Assessment
- 2013 **Volunteer preparator**, University of Washington Burke Museum, Mammal Division
- Reviewer** *Biotropica, Diversity and Distributions, Ecography, Ecology and Evolution, Ecosphere, Journal of Mammalogy, Journal of the Kentucky Academy of Sciences, Nature Communications, Zoologica Scripta*

INSTITUTIONAL SERVICE

Ohio University

- 2022-present **Establishing external partnership** with The Wilds, OHIO Honors Program
- 2023 **Reviewer**, Honors Tutorial College thesis assessment
- 2023 **Experiential learning opportunity organizer** for OHIO Honors Program students' attendance at Ohio Wildlife Management Association conference
- 2022 **Faculty Panelist**, Fulbright Scholarship Review, Ohio University Office of Nationally Competitive Awards

Morehead State University

- 2021-2022 **Mammal Collection curator**, Biology & Chemistry Department
- 2022 **Secured donation of 15 museum cabinets** for MSU Teaching Collections from University of Kansas Natural History Museum (estimated value >\$22,500)
- 2021 **Search Committee Member**, Biology & Chemistry Department Faculty Search

University of New Hampshire

- 2016-2019 **Co-creator and co-coordinator**, NREN Department Seminar Series
- 2017 **Poster session judge**, UNH Undergraduate Research Conference
- 2017 **Poster session judge**, UNH Graduate Research Conference
- 2016 **Graduate student liaison**, NREN Department faculty position search
- 2015-2016 **Student Networking Group co-coordinator**, NRESS Ph.D. Program

University of New Mexico

- 2012 **Reviewer**, UNM Biology Department Scholarships
- 2011-2012 **Co-chair**, UNM BGSA, Biology Department Research Day Committee
- 2011-2012 **Reviewer**, UNM BGSA Research Awards
- 2011 **Poster session judge**, UNM Biology Department Research Day
- 2011 **Evaluator**, UNM Biology Department Undergraduate Scholarships

OUTREACH & SERVICE

- 2023 **Presenter**, Ohio Mammals, Ohio University Child Development Center preschool class
- 2023 **Volunteer**, Ohio Valley Museum of Discovery, Athens' elementary 1st graders
- 2017 **Presenter**, Mammals of North America, Acton Elementary School, school-wide "National Parks Day," Acton, ME (using UNH Teaching Collection specimens)
- 2016 **Volunteer judge**, Maine Odyssey of the Mind
- 2015 **Volunteer judge**, Maine First LEGO League
- 2014 **Lesson designer**, Evolution lesson for 3rd-4th graders using UNH teaching collection mammal specimens in collaboration with teacher at Acton Elementary, Acton, ME
- 2012 **Guest speaker**, UNM Undergraduate Opportunities (UnO) Program
- 2012 **Guest speaker**, Benefits and opportunities in college and science for 9th grade "Pathfinders" classes at Rio Rancho High School, Rio Rancho, NM
- 2011 **Nature hike leader**, 7th grade class, Truman Middle School, Albuquerque, NM