

Brooks A. Kohli

Assistant Professor of Instruction

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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

- 2022-present **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**, Department of Biology, University of New Mexico
- 2010-2011 **Graduate Curator**, Museum of Southwestern Biology, Division of Mammals, University of New Mexico

TEACHING EXPERIENCE

Ohio University

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

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

Morehead State University

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

Principles of Biology Lab (BIOL 171L), Instructor (Fall 2021, Spring 2022)

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

Mammalogy (BIOL 438/638), Instructor (Fall 2021)

Ohio State University

Frontiers in Measuring Biodiversity graduate seminar, 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

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 – Small mammal specimen preparation and kidney index data collection

Ohio State University

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

University of New Hampshire

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

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

2015, 2016 **Field Crew Leader** – Trained and supervised seven undergraduates during my dissertation field research in 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 undergraduates in field methods and specimen curation and preparation.

Peer-Reviewed Papers

12. Balk, M.A. et al. (19 of 35 coauthors). A solution to the challenges of interdisciplinary aggregation and use of specimen-level trait data. In Press at *iScience*.
<https://doi.org/10.1016/j.isci.2022.105101>
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

*Undergraduate mentee

- Kohli, B.A.** Aridity effects on rodent elevational diversity patterns: Implications for global change. June 2022. Invited Symposium Speaker, "Mammal Diversity in Dynamic Landscapes". American Society of Mammalogists Annual Meeting. Tucson, Arizona.
- 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. Virtual Live Talk. 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. (Talk).
- 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).
- 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 (Talk).
- Kohli, B.A.** and R.J. Rowe. June 2018. Towards improved functional trait information for small mammals. American Society of Mammalogists, Manhattan, Kansas (Talk).

- 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 (Poster).
- 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. UNH Undergraduate Research Conference (Poster).
- 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 (Talk).
- 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 (Talk).
- 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 (Poster).
- 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 (Poster).
- 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 (Talk).
- 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 (Poster).
- Kohli, B.A.** and M.W. White. February 2010. Stock structure of hatchery and native muskellunge. Ohio Fish and Wildlife Conference, Columbus, Ohio (Poster).

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**, Malaysian Borneo
- 2007 **Turtle Ecology Field Research Assistant**, Dr. Willem Roosenburg's Lab, Maryland & Ohio field sites

PROFESSIONAL SOCIETY MEMBERSHIP

American Society of Mammalogists
International Biogeography Society
Kentucky Academy of Science

PROFESSIONAL SERVICE

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 (Virtual)
2021 **Invited Workshop Participant**, NARLEE (North American Rodents-Landscapes, Ecology, Evolution) RCN
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, Ecography, Ecology and Evolution, Ecosphere, Journal of Mammalogy, Journal of the Kentucky Academy of Sciences, Nature Communications, Zoologica Scripta*

INSTITUTIONAL SERVICE

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

- 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