

**Leo M. Khasoha**  
**Mpala Research Center**  
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**Research Interests:**

I study the mechanisms and processes that maintain ecological patterns and shape species assemblages. My research interest spans population, community, evolutionary, and conservation ecology, combining molecular tools, field experiments, and long-term demographic data to illuminate the drivers of ecological community dynamics.

**Education:**

- 2026 PhD in Ecology and Evolution,  
*Department of Zoology and Physiology, University of Wyoming, USA*  
Dissertation: Diet, Dispersal, and Life History Strategies as Drivers of Small Mammal Community Dynamics in African Savanna.  
Advisor: Dr. Jacob Goheen
- 2023 MSc in Biology of Conservation,  
*Department of Biology, University of Nairobi, Kenya*  
Thesis: Implications of Dietary Variation on Abundance and Occupancy Relationships in a Predominantly Muroid Small Mammal Community in Mpala Conservancy, Kenya.  
Advisors: Dr. Evans Mwangi and Dr. Jacob Goheen
- 2016 BSc. Wildlife Management,  
*Natural Resources Department, Egerton University, Kenya*  
Advisor: Dr. Henry Karanja
- 2016 Certificate in Environmental Impact Assessment and Environmental Auditing,  
*Environmental Science Department, Egerton University, Kenya*

**Research Projects:**

- 2017- Present Collaborator: Ungulate Herbivory Under Rainfall Uncertainty experiment at Mpala Research Center, Kenya
- Abundance-occupancy relationships: a mechanistic test of the resource breadth and the core-satellite hypotheses
  - A mechanistic test of the niche variation hypothesis and optimal foraging theory: foraging strategies and fitness component
  - The fast-slow life history continuum: demography of rufous elephant shrew (*Elephantulus [Galegeeska] rufescens*) and co-occurring rodents
  - Gut microbiomes in a diverse natural assemblage of co-occurring small mammals
  - The resilience of African savannas: the response of vegetation and small mammals after a prolonged drought
- 2016- Present Collaborator: Mammal Atlas of Kenya (MAKENYA Project) for Mammalogy Section in Zoology Department of National Museums of Kenya
- 2024 Graduate Research Assistant: Monitoring responses by species of Western bats to the arrival of white nose syndrome at Jewel Cave National Monument
- 2018 Research Assistant: Predicting the Future of Global Health in Kenya, USAID PREDICT Program, Smithsonian Institute
- 2016 Research Assistant (Mammals Team): Social-Ecological Changes in Sibiloi National Park and Surroundings, Kenya: an integrated inter-disciplinary approach project of Helsinki University, National Museums of Kenya, Kenya Wildlife Service, University of Nairobi,

University of Maasai Mara, Mpala Research Center, Turkana Basin Institute and Museum of Natural History of Berlin [sibilo.wordpress.com/rodents/](http://sibilo.wordpress.com/rodents/)

### **Work Experience:**

- 2017- Present Project Manager:  
Ungulate Herbivory Under Rainfall Uncertainty experiment program, Mpala Research Center
- Coordinate all biodiversity research in the Ungulate Herbivory Under Rainfall Uncertainty experiment
- 2016- Present Research Affiliate:  
Mammalogy Section, Zoology Department of National Museums of Kenya
- Contribute to the taxonomical and ecological study of Kenya's small mammals including training of interns in the Mammalogy Section
- 2024 Graduate Research Assistant:  
Department of Zoology and Physiology, University of Wyoming
- Bat netting in the Jewel Cave National Monument to monitor western bats species responses to white nose syndrome
- 2020 Graduate Research Assistant:  
Jacob Goheen Lab, Department of Zoology and Physiology, University of Wyoming
- Contributed to the development of a clean biodiversity database for the Ungulate Herbivory Under Rainfall Uncertainty experiment using a 10-year dataset of vegetation surveys, small mammal monitoring, ungulate dung counts, and rainfall monitoring
- 2015 Wildlife Management Intern:  
Zoology Department of National Museums of Kenya
- Contributed to the management of museum specimens through preparation, preservation and accession of specimens
  - Guided visitors in the zoology department collections

### **Teaching Experience:**

- Spring 2026: Teaching Assistant  
ZOO 4190- Comparative Environmental Physiology (undergraduate course).  
Department of Zoology and Physiology, University of Wyoming
- Fall 2025, 2024, 2023, 2022, 2021: Teaching Assistant  
ZOO 4400- Population Ecology (undergraduate and graduate course).  
Department of Zoology and Physiology, University of Wyoming
- Summer 2025, 2022: Instructor  
Field Methods in Mammalogy (field course).  
Nature Kenya and Mammalogy Section of National Museums of Kenya
- Summer 2024, 2022: Instructor  
ZOO-4900- Ecology, Human Dimension/Conservation in East Africa (field course).  
Department of Zoology and Physiology, University of Wyoming
- Spring 2024, 2022: Teaching Assistant  
LIFE 1003- Current Issues in Biology (undergraduate course).  
Department of Zoology and Physiology, University of Wyoming
- Spring 2021: Teaching Assistant  
ZOO 2450- Fish & Wildlife in Anthropocene (undergraduate course).  
Department of Zoology and Physiology, University of Wyoming

### **Peer-Reviewed Publications:**

- In Prep Reed, C.G., **Khasoha L.M.**, Palmer-Brown B.R., Ang'ila R.O., Lokeny P., Busienei G., Kurukura S., Hassan A.A., Palmer T.M., Pringle R.M., Goheen J.R., & Kartzinel T.R.

- Small mammal niche relaxation generates nested trophic networks after defaunation. For *Ecology*.
- In Review Brown B.R.P.U., **Khasoha L.M.**, Palmer T.M., Pringle R.M., Newsome S.D., Goheen J.R., & Kartzinel T.R. Experimental defaunation modifies diet and gut microbiome of a wild gerbil, *Gerbilliscus robustus*. In *Current Biology*.
- In Review **Khasoha L.M.**, Rick J.A., Reed C.G., Brown B.R.P.U., Wagner C.E., Mwangi E.M., ... & Goheen J.R. Consumer-resource interactions underlie the abundance-occupancy relationship in savanna small mammals: field tests of a macroecological pattern with populations and individuals. In *Ecology*.
- 2024 Brown B.R.P.U., **Khasoha L.M.**, Lokeny P., Jakopak R.P., Reed C.G., Dyck M.A., Wambua A., Newsome S.D., Palmer T.M., Pringle R.M., Goheen J.R., & Kartzinel T.R. Spatiotemporal variation in the gut microbiomes of co-occurring wild rodents. *Ecosphere*, 15(5).
- 2023 Lujan E., Nielsen R., Short Z., Wicks S., Watetu W.N., **Khasoha L.M.**, Goheen J.R., & Alston J.M. Symbiotic acacia-ants drive nesting behavior by birds in an African savanna. *Biotropica*, 55, 1101–1105.
- 2023 Brown B.R.P.U., Goheen J.R., Newsome S.D., Pringle R.M., Palmer T.D., **Khasoha L.M.**, & Kartzinel T.R. Host phylogeny and functional traits differentiate gut microbiomes in a diverse natural assemblage of small mammals. *Molecular Ecology*, 32(9), 2320-2334.
- 2023 Wells H.B., Crego R.D., Alston J.M., Ndung'u S.K., **Khasoha L.M.**, Reed C.G., ... & Young T.P. Wild herbivores enhance resistance to invasion by exotic cacti in an African savanna. *Journal of Ecology*, 111(1), 33-44.
- 2022 Alston J. M., Reed C. G., **Khasoha L. M.**, Brown B. R., Busienei G., Carlson N., ... & Goheen J. R. (2022). Ecological consequences of large herbivore exclusion in an African savanna: 12 years of data from the UHURU experiment. *Ecology*, 103(4), e3649.
- 2021 Wells H. B., Crego R. D., Opedal Ø. H., **Khasoha L. M.**, Alston J. M., ... & Goheen J. R. (2021). Experimental evidence that effects of megaherbivores on mesoherbivore space use are influenced by species' traits. *Journal of Animal Ecology*, 90(11), 2510-2522.

#### **Presentations at Scientific Meetings:**

- 2025 **Khasoha, L.M.**, Opiyo G.L., Reed, C.G., Kartzinel, T.R., & Goheen, J.R. Consumer-resource interactions underlie the abundance-occupancy relationship in savanna small mammals: field tests of a macroecological pattern with populations and individuals. *103<sup>rd</sup> Annual Meeting of the American Society of Mammalogists*, Indiana, USA (plenary talk).
- 2023 **Khasoha, L.M.**, Garret, K.G., Rhiannon J., Opiyo, G.L., & Goheen, J.R. Life in the slow lane for rufous elephant shrew: testing predictions of life history theory in a small mammal community. *The 14<sup>th</sup> African Small Mammal Symposium*, Swakopmund, Namibia (talk).
- 2023 Garret, K.G., **Khasoha, L.M.**, Rhiannon J., Opiyo, G.L., & Goheen, J.R. Life in the slow lane for rufous elephant shrew: testing predictions of life history theory in a small mammal community. *The 14<sup>th</sup> International Mammalogical Congress*, Alaska, USA (talk).
- 2022 **Khasoha, L.M.**, Opiyo G.L., Reed, C.G., Kartzinel, T.R., & Goheen, J.R. Abundance-occupancy relationships in small mammals of a Kenyan savanna: Why the common are widespread and the rare restricted. *101<sup>st</sup> Annual Meeting of the American Society of Mammalogists*, Arizona, USA (talk).
- 2022 **Khasoha, L.M.**, Reed, C.G., Kartzinel, T.R., & Goheen, J.R. Abundance-occupancy relationships in small mammals: Why the common are widespread and the rare restricted. *Program in Ecology Symposium*, University of Wyoming, USA (talk).
- 2019 **Khasoha, L.M.**, & Goheen, J.R. Does dietary generalism confer fitness advantages in a small mammal community? *The 13<sup>th</sup> African Small Mammal Symposium*, Mekelle University, Ethiopia (talk).

- 2019 Bianca, B.R.P., Goheen, J.R., **Malingati, L.**, Palmer, T.M., & Kartzinel, T.R. Evolutionary history predicts microbiome composition for orders, but not species, of co-occurring mammals. *Evolution 2019*, Rhode Island, USA (talk).
- 2019 Bianca, B.R.P., Goheen, J.R., **Malingati, L.**, Palmer, T.M., & Kartzinel, T.R. Evolutionary history predicts microbiome composition for orders, but not species, of co-occurring mammals. *Gordon Research Conference on Animal-Microbiome Symbioses 2019*, Vermont, USA (poster).
- 2018 **Malingati, L.**, Boro, D.M., Dyck M., Jakopak, R., Otieno, T.O., Wambua, A.M., Palmer, T.M., Pringle, R.M., & Goheen, J.R. The Ungulate Herbivory Under Rainfall Uncertainty (UHURU) Experiment, Laikipia Kenya. *National Science Week 2018*, Kenyatta International Conference Center (KICC), Kenya (poster).

#### **Invited Seminars:**

- 2023 How small mammal communities are maintained in a Kenyan Savanna: Why are the common abundant, and the rare restricted? *Mammal Committee, Nature Kenya (Kenya)*.
- 2022 Diet, dispersal, and life history strategies as drivers of small mammal community dynamics. *Brown Bag Seminar, University of Wyoming (USA)*.

#### **Awards, Fellowships and Research Grants:**

- 2025 The Elmer C. Birney Award. American Society of Mammalogists.
- 2025 Dr. George Menkens Memorial Scholarship, USD 22000
- 2024 Michael and Linda Tiernan Scholarship and Research Fund Award, USD 1800
- 2023 Ecologists in Africa Award. British Ecological Society, GBP 8000
- 2022 Lyman and Margie McDonald Research Award for Quantitative Analysis in Wildlife. Zoology and Physiology Department, University of Wyoming, USD 3700
- 2022 Center for Global Studies (CGS) Student International Research Grant. Center for Global Studies, University of Wyoming, USD 2000
- 2022 2<sup>nd</sup> Rufford Small Grant. The Rufford Foundation, GBP 6000
- 2022 Biodiversity Graduate Student Research Enhancement Grant. Biodiversity Institute, University of Wyoming, USD 20,000
- 2021 L. Floyd Clarke Graduate Scholar Award. Zoology and Physiology Department, University of Wyoming, USD 3000
- 2021 Dick and Lynne Cheney Graduate Fellowship for Excellence in Study Abroad. Global Engagement Office, University of Wyoming, USD 4500
- 2020 L. Floyd Clarke Graduate Scholar Award. Zoology and Physiology Department, University of Wyoming, USD 3500
- 2020 1<sup>st</sup> Rufford Small Grant. The Rufford Foundation, GBP 5997

#### **Exhibitions:**

- 2019 Diversity, Economic Importance, and Conservation of Mammals in Kenya, and Careers in Mammalogy. Oshwal Senior Academy, Karura Forest, Nairobi.
- 2016 Diversity, Economic Importance, and Conservation of Mammals in Kenya. Open Day for Farmers, National Museums of Kenya, Nairobi.

#### **Media Coverage:**

- In Prep *The Small Five of Kenya*: In collaboration with the Wildlife Warriors Tv program, Mammalogy Section-National Museums of Kenya, and Mammal Committee- Nature Kenya, I am planning to work with kids to nominate the “small five” of Kenya that will compare to the “big five” of Kenya. The goal is to encourage the appreciation of all wildlife and especially the small critters that are often ignored in favor of the charismatic megafauna.

2022 *Small mammals, big questions*: In collaboration with the Wildlife Warriors TV program, I developed a documentary on small mammals in the African savanna of Kenya [youtu.be/kPwhdErVYxg](https://youtu.be/kPwhdErVYxg) (the full video is here [vimeo.com/683239972](https://vimeo.com/683239972) Password: WWS3ason2!). This was aired on the national Kenyan television.

### **Professional Service and Outreach:**

2020- Present Chair: *Mammal Committee- Nature Kenya*  
2017- 2019 Executive: *Kenya Herpetofauna Working Group- Nature Kenya*  
2015- 2015 Chair: *Wildlife Club, Egerton University*

### **Membership in Professional Societies and Groups:**

2023- Present Member, IUCN SSC Small Mammal Specialist Group (SMMSG)  
2022- Present Member, British Ecological Society (BES)  
2022- Present Member, American Society of Mammalogists (ASM)  
2019- Present Member, Nature Kenya  
2017- Present Pioneer, Environmental Justice Advocates-Kenya (EJA)  
Facebook page: [www.facebook.com/environmentaljusticeadvocates](https://www.facebook.com/environmentaljusticeadvocates)

### **Manuscript Reviews:**

*Ecological Applications (2025), Journal of Zoology (2024), Journal of Animal Ecology (2024), Mammalia (2023), Journal of Zoology (2023), Journal of Mammalogy (2022), Ecography (2021)*

### **Personnel Training:**

2020- Present Mr. George Opiyo, Field Technician and Mammalogy National Museums of Kenya Internship Undergraduate- Mpala Research Center  
Current position: MSc Student, Karatina University  
2023 Mr. Allan Kipruto, Former University of Nairobi Undergraduate in Wildlife Management and Conservation  
2023 Mr. Nicholas Mati, Former University of Maasai Mara Undergraduate in Wildlife Management  
2022- 2023 Ms. Katherine Garrett, Former University of Wyoming Undergraduate in Wildlife  
Current position: MSc Student, University of Missouri  
2021 Ms. Violet Gatonye, Field Technician- Mpala Research Center  
Current position: Programs Assistant, East African Wildlife Society  
2020- 2021 Ms. Cate Lonyangaita, Field Technician- Mpala Research Center  
2019- 2020 Ms. Sarah Weiner, Field Technician- Mpala Research Center  
2019 Mr. Samson Mabeya, Field Technician and Mammalogy National Museums of Kenya Internship Undergraduate, Mpala Research Center  
Current position: PhD Student, Kunming Institute (China)  
2019 Mr. Daniel Mutavi, Field Technician and Mammalogy National Museums of Kenya Internship Undergraduate, Mpala Research Center  
Current position: PhD Student, Kunming Institute (China)

### **Referees:**

1. Dr. Jacob R. Goheen: Professor, Department of Zoology and Physiology, University of Wyoming | Telephone: 1-307-509-0280, Email: [jgoheen@uwyo.edu](mailto:jgoheen@uwyo.edu), Website: [www.goheenresearchgroup.com](http://www.goheenresearchgroup.com)
2. Dr. Simon Musila: Head of Mammalogy, Zoology Department, National Museums of Kenya | Telephone: +254- 727-093-737, Email: [smusila@museums.or.ke](mailto:smusila@museums.or.ke)
3. Dr. Tyler Kartzinel: Assistant Professor, Department of Ecology, Evolution, and Organismal Biology, Brown University | Telephone: 1-401-863-5851, Email: [tyler\\_kartzinel@brown.edu](mailto:tyler_kartzinel@brown.edu), Website: [www.kartzinellab.com](http://www.kartzinellab.com)