



Mpala Newsletter

January 2025 | Issue #26



Princeton University STEM course pictured at Il Motiok Community

Letter from the Executive Director

Dear Mpala Community,

The energy at Mpala has been infectious, as we welcomed students and researchers from several esteemed institutions, including Princeton University, Columbia University, Harvard University, Oxford University, KEMRI, George Mason University, Exeter University, and the University of Helsinki. Their passion and enthusiasm have been inspiring, and we're proud to continue fostering meaningful academic exchanges that push the boundaries of knowledge and collaboration.

We were delighted to host a delegation of faculty and staff from Princeton University at Mpala. After the visit, Stephen Jackson (Princeton '94 and '03), the UN Resident Coordinator in Kenya, invited the team to the United Nations Headquarters in Nairobi. We participated in a discussion on the powerful intersection of conservation, policy, and global environmental efforts with a team of scholars and conservationists from across Kenya.

Following this, we had an exciting visit to Nairobi National Park and the Kenya Wildlife Service (KWS) headquarters with Dr. Aly Kassam Remtulla (Vice Provost for International Affairs and Mpala Board Chair), Karen McGuinness (Senior Associate Dean, The School of Public and International Affairs (SPIA)), and Professor Eduardo Bhatia (SPIA). We had a great [meeting](#) with the Director General and his team.

We're excited about what the year ahead holds and look forward to another season of learning, growth, and collaboration as we continue working together to protect Kenya's extraordinary biodiversity for future generations.

Warm regards,

Dr. Winnie Kiuru, Executive Director

Faces of Mpala



Featured Researcher: Leo Khasoha

Leo Khasoha is a collaborator and PhD student in the Ecology and Evolution program at the University of Wyoming.

He was first introduced to Mpala on a mammalogy field course in 2016 organized by Dr. Jacob Goheen. This visit sparked his interest in exploring ecological theories through data from the Ungulate Herbivory Under Rainfall Uncertainties (UHURU) experiment.

[Read more about Leo](#)



Featured Researcher: Evan Foster

Evan Foster is a PhD student at University of Notre Dame researching how savanna plant communities respond to human impacts like climate change.

By transplanting plants across the rainfall gradient and herbivore exclosures, he mimics the effects of human impacts in a controlled manner to predict how savanna plants at large will respond to changes in the landscape.

[Read more about Evan](#)

Featured Staff: Margaret Zeki

Margaret Zeki is the HR officer at Mpala. She is a Laikipia native, born and raised in the neighbouring Il Motiok Community group ranch.

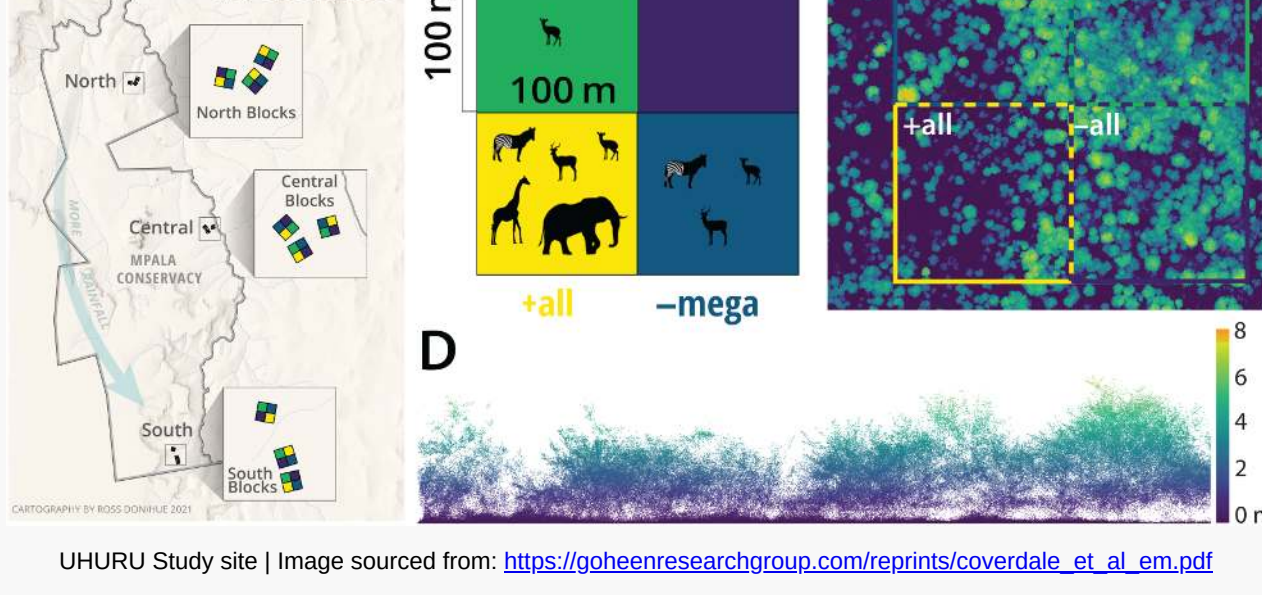
As the HR officer at Mpala, she is committed to creating a strong work environment and supporting the training of staff. She also hopes to motivate staff to be ambassadors of Mpala and build good relations with Mpala's partners.



[Read more about Zeki](#)

Updates from the Field

Ungulate Herbivory Under Rainfall Uncertainty (UHURU)



UHURU Study site | Image sourced from: https://goheenresearchgroup.com/reprints/coverdale_et_al_em.pdf

The Ungulate Herbivory Under Rainfall Uncertainty Project (UHURU), was established in 2008. This research project aims to explore and isolate the ecological consequences associated with diverse size classes of large mammalian herbivores. It effectively mimics the potential outcomes of large herbivore extinction based on size across various gradients of rainfall. The primary objective is to gain insights into when and where the loss of these species is likely to impact community structure and ecosystem functionality, especially in the context of an ever-changing environment. To achieve this, the experiment employs three distinct treatments:

- 1. Mega Plots:** These plots exclude mega herbivores, such as elephants and giraffes.
- 2. Meso Plots:** Exclusively exclude both mega-herbivores and meso herbivores.
- 3. Total Plots:** Exclude all herbivores.
- 4. Control Plots:** Remain accessible to all wild herbivores.

The collaborative team behind this project comprises researchers including:

- [Jake Goheen](#) from the University of Wyoming
- [Rob Pringle](#) from Princeton University
- [Todd Palmer](#) from the University of Florida
- [Tyler Kartzinzel](#) from Brown University

[Learn more about this project](#)

Featured Publications

We have updated the list of [publications](#) on our website to include research from 2024!



Spatiotemporal variation in the gut microbiomes of co-occurring wild rodent species

Bianca R. P. Brown | Leo M. Khasoha | Peter Lokeny | Rhiannon P. Jakopak | Courtney G. Reed | Marissa Dyck | Alois Wambua | Seth D. Newsome | Todd M. Palmer | Robert M. Pringle | Jacob R. Goheen | Tyler R. Kartzinzel

Mammalian gut microbiomes differ within and among hosts. Hosts that occupy a broad range of environments may exhibit greater spatiotemporal variation in their microbiome than those constrained as specialists to narrower subsets of resources or habitats. This study examines spatiotemporal variation in the gut microbiomes of three co-occurring rodent species across an environmental gradient in a Kenyan savanna, discovering that maintenance of large host populations contributes to the maintenance of gut microbiome diversity in wild mammals.

[Continue reading](#)

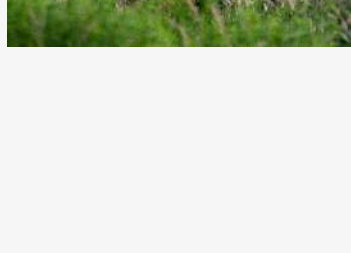


Herbivore regulation of savanna vegetation: Structural complexity, diversity, and the complexity–diversity relationship

Tyler C. Coverdale | Peter B. Boucher | Jenia Singh | Todd M. Palmer | Jacob R. Goheen | Robert M. Pringle | Andrew B. Davies

Large mammalian herbivores exert strong top-down control on plants, which influence ecological processes. The decline, displacement, or extinction of wild large herbivores in African savannas is expected to alter the physical structure of vegetation, diversity of plant communities, and downstream ecosystem functions. Combining high-resolution Light Detection and Ranging (LiDAR) with field measurements from size-selective herbivore exclosures in Kenya, this study determined how herbivores affect the diversity and physical structure of vegetation, how these impacts vary with body size and plant type, and whether there are predictable associations between plant diversity and structural complexity.

[Continue reading](#)



Impact of large herbivores on terrestrial ecosystems

Robert M. Pringle | Joel O. Abraham¹ | T. Michael Anderson | Tyler C. Coverdale | Andrew B. Davies | Christopher L. Dutton | Angela Gaylard | Jacob R. Goheen | Ricardo M. Holdo | Matthew C. Hutchinson | Duncan M. Kimuyu | Ryan A. Long | Amanda L. Subalusky | Michiel P. Veldhuis

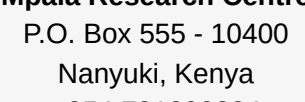
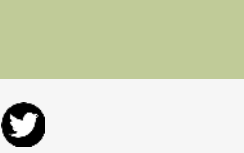
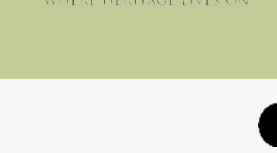
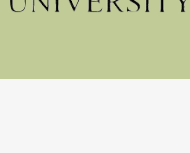
Large herbivores play unique ecological roles and are disproportionately imperilled by human activity. As many wild populations dwindle towards extinction, and as interest grows in restoring lost biodiversity, research on large herbivores and their ecological impacts has intensified. Yet, results are often conflicting or contingent on local conditions. This study reviews what is known about the ecosystem impacts of large herbivores globally, identifies key uncertainties, and suggests priorities to guide research.

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Mpala explores solutions to current and emerging challenges by advancing transformational ecosystems research and teaching, conserving our environment, and partnering with our community

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Our Partners



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