



Mpala Newsletter

July 2025 | Issue #32



Celebrating July birthdays at Mpala Research Centre

Letter from the Mpala Team

Dear Mpala Community,

July has been a vibrant month of learning, collaboration, and celebration here at Mpala. With our busy season in full swing, the Centre is alive with energy—from youth engagement and workshops to fieldwork and joyful birthday celebrations!

In honour of World Youth Skills Day on July 15th, we were delighted to host 37 students from Daraja Academy's Transition Program for an exciting, hands-on day of learning. Through activities such as vegetation surveys on the Kenya Long-term Exclosure (KLEE) plots and VHF tracking around campus, students explored real-world research techniques. The day sparked curiosity, built confidence, and deepened conservation awareness—equipping these young learners with skills for future careers in science and beyond.

Continuing the spirit of skill-sharing, a team from the University of Notre Dame facilitated a Data Organization and Spreadsheets Workshop for 25 students and research assistants from Mpala and surrounding communities. Participants honed essential data skills that are crucial for fieldwork and research careers, strengthening their ability to manage and interpret scientific data.

Mpala remains a thriving hub of research and learning. This month, we've had the privilege of hosting students and researchers from institutions including the Max Planck Institute of Animal Behaviour, Harvard University, Princeton University, Egerton University, Wyss Academy, Cornell University, and others. As part of their six-week program, the NSF IRES team concluded their stay by presenting their research findings to staff and fellow researchers on campus.

And of course, no July would be complete without celebration, including cake and cheer for all our July birthdays. We're grateful for every person who makes Mpala such a vibrant place to learn, work, and grow.

As always, we are inspired by the strength of community and the possibilities that emerge when knowledge, culture, and care come together. Thank you for being part of this journey.

Warm regards,
The Mpala Team

Featured Research

Wildlife and cattle effects on nutrient cycling



We are conducting a nutrient addition experiment in the Kenya Long-term Exclosure Experiment (KLEE) plots to better understand how different large herbivore guilds, in combination with cattle, affect soil nutrients, plant growth, and overall ecosystem health. By adding nutrients to distinct herbivore guilds, we're exploring how these different scenarios influence soil nutrient dynamics, plant community composition, and aboveground productivity in a savanna ecosystem.

Our team started collecting pre-treatment data in 2023, and by early 2024, had set up 75 plots across the KLEE experiment. Our team, which has included graduate students Carmen Watkins and Sarah Ortiz and KLEE plant experts Mathew Namoni and Jackson Ekadeli, conducts annual measurements of aboveground biomass, species cover, and light availability. In addition to KLEE-specific questions, these data will contribute to the Nutrient Network globally distributed experiment, in which African sites are highly underrepresented.

This experiment addresses pressing questions at the intersection of global change, biodiversity loss, and nutrient cycling, and provides a framework for a broad range of other research questions. These include understanding the role of herbivores in determining rates of nitrogen fixation in legumes, which in turn determine the amount of new Nitrogen entering the ecosystem. In addition, these plots provide a framework for understanding the association between soil microbes and soil nutrients, and plant communities, linking mammalian communities to microbial functioning. Collectively, this research will help us understand the interplay between biotic and abiotic factors that influence ecosystem services, such as forage quality and quantity, in arid and semi-arid rangelands.

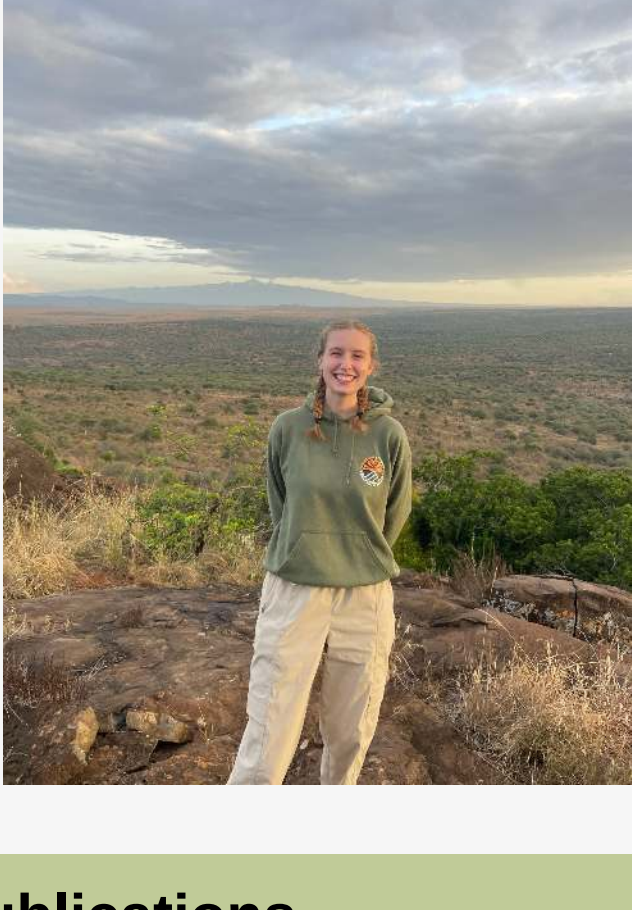
[Read more about this Project](#)

Faces of Mpala

Featured Researcher: Sophia Richter

Fueled by her love for nature, Sophia's research career has taken her from Panama to Yellowstone National Park, researching vegetation dynamics and microbial ecology. Now, as a PhD student in Tyler Coverdale's lab at the University of Notre Dame, Sophia blends her passions for tropical ecology, microbiology, grasslands, and plant-animal interactions to focus on rewilding—the reintroduction of large herbivores—into the KLEE plots at Mpala.

[Read more about Sophia](#)



Featured Publications



Habitat selection during dispersal reduces the energetic cost of transport when making large displacements

Tullio de Boer, Kennedy Sikenkeny, Brendah Nyaguthii, Damien R. Farine, James A. Klarevas-Irby

There is growing evidence that dispersing animals can express distinct movement strategies that allow them to mitigate most of the energetic costs of displacing over large distances. This study combines step-resolution GPS tracking data in terrestrially dispersing vulturine guineafowl (*Acryllium vulturinum*) to test the hypothesis that dispersing animals should select for habitats that facilitate more energetically efficient movements during dispersal.

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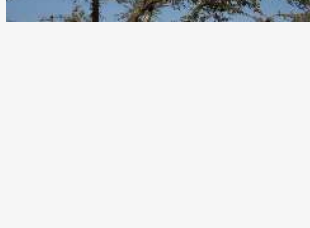


BaboonLand Dataset: Tracking Primates in the Wild and Automating Behaviour Recognition from Drone Videos

Isla Duporge, Maksim Kholiavchenko, Roi Harel, Scott Wolf, Dan Rubenstein, Meg Crofoot, Tanya Berger-Wolf, Stephen Lee, Julie Barreau, Jenna Kline, Michelle Ramirez, Charles Stewart

Using drones to track multiple individuals simultaneously in their natural environment is a powerful approach for better understanding group primate behavior. To understand group behavior and the self-organization of a collective, the whole troop needs to be seen at a scale where behavior can be seen in relation to the natural environment in which ecological decisions are made. This study presents a novel dataset from drone videos for baboon detection, tracking, and behavior recognition.

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Myrmecophytic Acacia drepanolobium extends protection against herbivores to the herbaceous vegetation community growing underneath their canopies v

Julius Karugu, Duncan Kimuyu, David Kenfack, Moshe Inbar

Whistling thorn acacia (*Acacia drepanolobium*) defends itself against large mammal herbivore with spinescence and symbiotic ants. While these defences have been extensively studied, little is known about the extent to which *A. drepanolobium* defence may benefit other plants growing in close association. This study examined variation in herbaceous vegetation height, biomass and composition between areas underneath *A. drepanolobium* canopies and the adjacent matrix in both fenced herbivore exclosures and unfenced areas.

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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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Mpala Research Centre
P.O. Box 555 - 10400

Nanyuki, Kenya
+254 721202324
info@mpala.org