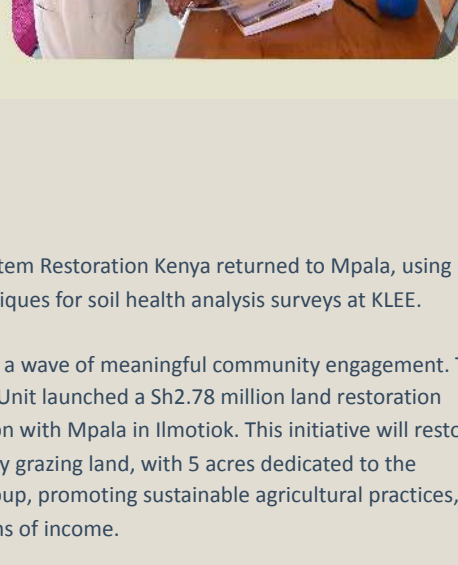
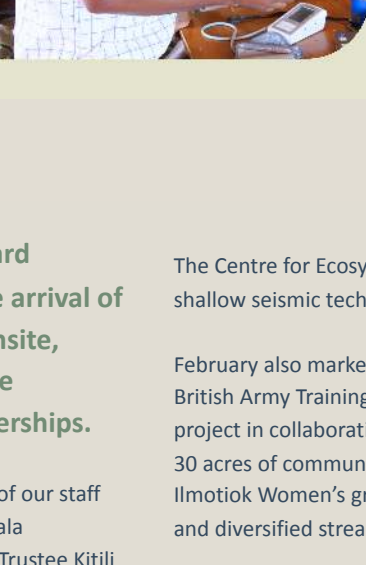
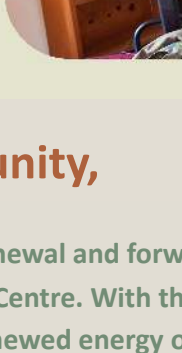




Mpala Medical Clinic for Heart Health



Dear Mpala Community,

February marked a month of renewal and forward momentum at Mpala Research Centre. With the arrival of the first rains, we have felt a renewed energy onsite, reflected in new research projects, infrastructure development, and deepening community partnerships.

A major milestone this month was the official groundbreaking of our staff housing project funded by Princeton University. The entire Mpala community, including staff, researchers, project managers and Trustee Kitili Mbathi, came together to mark the occasion. Over the next 18 months, this transformative project will deliver 120 new housing units for essential staff.

We welcomed a new research project under Dr. Patrick Kennedy from the University of Bristol, focusing on the social evolution of wasps. PhD student Ellie Trelfa-Stewart is investigating dominance hierarchies in *Belonogaster* wasps, commonly found across the Laikipia landscape.

The WildDrone consortium launched its hackathon at Mpala, where 14 PIs and graduate students, led by Dr Ulrik Lundquist from the University of Southern Denmark and Dr Blair Costelloe from the Mara Elephant Project, explored the potential of drone-based tools for Mpala's research landscape.

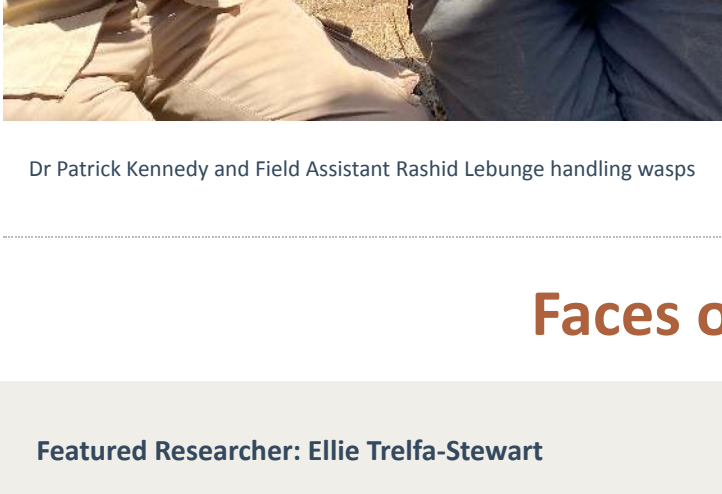
The Centre for Ecosystem Restoration Kenya returned to Mpala, using shallow seismic techniques for soil health analysis surveys at KLEE.

February also marked a wave of meaningful community engagement. The British Army Training Unit launched a Sh2.78 million land restoration project in collaboration with Mpala in Ilmotok. This initiative will restore 30 acres of community grazing land, with 5 acres dedicated to the Ilmotok Women's group, promoting sustainable agricultural practices, and diversified streams of income.

Internally, we celebrated the month of love by organizing a staff medical clinic focused on heart health, with 35 team members attending across departments. We also welcomed a psychologist from The Leo Project, who facilitated a thoughtful session on relationship dynamics, conflict resolution and healthy boundary setting in the workplace and beyond.

We look forward to building on this momentum in the months ahead and remain grateful for the dedication, collaboration, and shared purpose that define our community.

Warm regards,
The Mpala Team



Dr Patrick Kennedy and Field Assistant Rashid Lebugue handling wasps

Updates from the Field

Power and politics in the animal world: African wasps as a model system

For social insects, nutrition can mean the difference between reproductive dominance and a life of subordination. Particularly in their early development (larval stages) the quality of food received by primitively eusocial wasps determines whether individuals choose to invest in their own reproduction, or to help a close relative to reproduce. This project aims to investigate a seemingly paradoxical behaviour exhibited by social wasps: larvae donating nutrients back to their adult nestmates.

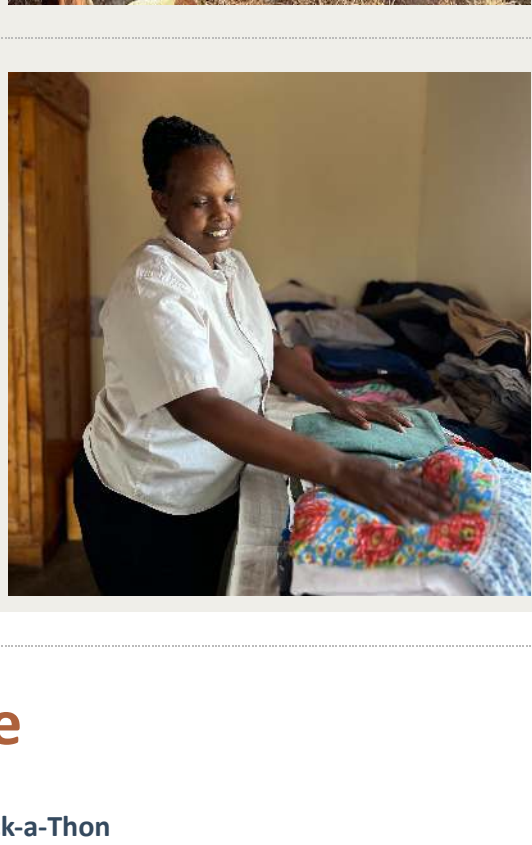
The team commencing this work in Kenya consists of PhD student Ellie Trelfa-Stewart, her supervisor Dr. Patrick Kennedy, and their field assistant Rashid Lebugue. With researchers at Mpala and the University of Bristol's Social Strategy Lab, this project forms part of the broader African Wasp Project, a program using wasps as a model species to study the evolution of cooperation and conflict across the diverse habitats of Africa.

[Read more about this project](#)

Featured Researcher: Ellie Trelfa-Stewart

Ever since her Professional Training Year in animal behaviour research during her Zoology BSc at Cardiff University, Ellie's passion for behavioural ecology has continued to grow. Following the submission of her undergraduate thesis on zoological science communication, and a stint as a research assistant in Borneo, Ellie went on to pursue a Master's degree in Evolution and Behavioural Ecology at the University of Exeter. She is now a first-year PhD student at the University of Bristol, where she investigates social evolution in an African wasp species, *Belonogaster*. Beyond her own project, she aims to produce a PhD thesis that advances our understanding of social evolution.

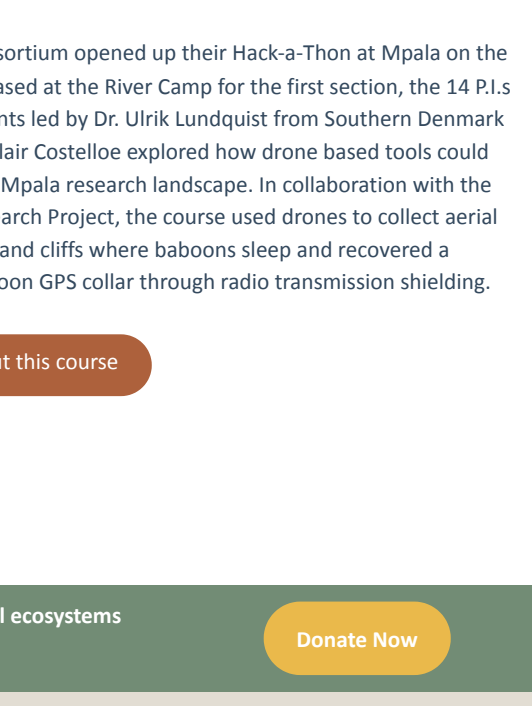
[Read more about Ellie](#)



Featured Staff: Beatrice Chepkoech

Originally from Rumuruti in Eastern Laikipia, Beatrice has worked as a room steward at Mpala for ten years. She enjoys welcoming international visitors and takes pride in always approaching guests with a warm smile. Beatrice values Mpala not only for the financial stability it has provided for her family, but also for the sense of community she has found. Mpala has become a second home to her, and her colleagues in the housekeeping department have become like sisters. She hopes to continue expanding her skills in housekeeping and one day learn more about catering, cooking, and baking.

[Read more about Beatrice](#)



Featured Course



WildDrone Hack-a-Thon group at Cliffords, Mpala

WildDrone Hack-a-Thon

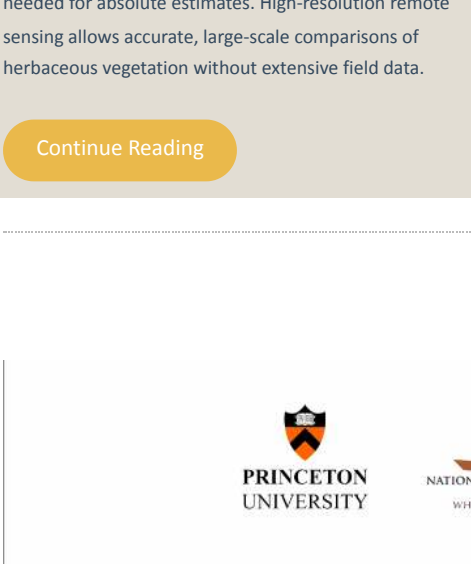
The WildDrone consortium opened up their Hack-a-Thon at Mpala on the 20th of February. Based at the River Camp for the first section, the 14 PIs and graduate students led by Dr. Ulrik Lundquist from Southern Denmark University and Dr. Blair Costelloe explored how drone based tools could have impact on the Mpala research landscape. In collaboration with the Mpala Baboon Research Project, the course used drones to collect aerial photos of the trees and cliffs where baboons sleep and recovered a malfunctioning baboon GPS collar through radio transmission shielding.

[Read more about this course](#)

We at Mpala explore 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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Recently Published Papers

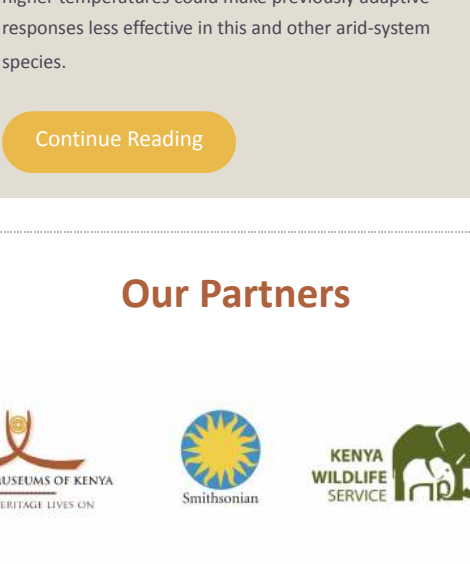


Quantifying aboveground herbaceous biomass in grassy ecosystems: a comparison of field and high-resolution UAV-LiDAR approaches

Coverdale, T.C., Baucher, P.B., Singh, J., and Davies, A.B., (2025)

Grassy ecosystems cover over 25% of the world's land and influence carbon cycling, water regulation, and grazing wildlife. This study uses UAV-borne LiDAR to estimate aboveground herbaceous biomass (AGB) at sub-meter resolution across large savanna areas. LiDAR-derived metrics closely matched destructively harvested AGB ($R^2 > 0.6$), though site-specific calibration may be needed for absolute estimates. High-resolution remote sensing allows accurate, large-scale comparisons of herbaceous vegetation without extensive field data.

[Continue Reading](#)

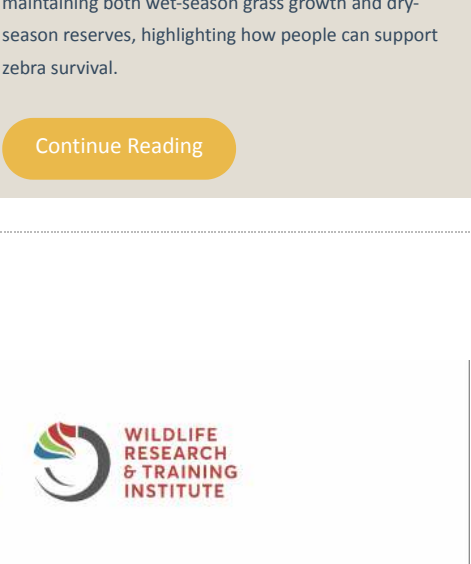


Resource scarcity increases foraging activity despite thermal risk in an arid-adapted bird

Christensen, C., Sikenykeny, K., and Farine, D.R., (2025)

Behavioural flexibility helps species cope with climate change. In wild vulturine guineafowl (*Acryllium vulturinum*), biollogging data over 2.5 years, including a severe drought, show that resource scarcity increases foraging despite thermal risks. Birds face a 'thermal threshold' at 33.8 °C, yet feeding activity rises as resources decline, though body mass still drops, indicating incomplete compensation. These sublethal effects may reduce fitness, and intensifying droughts and higher temperatures could make previously adaptive responses less effective in this and other arid-system species.

[Continue Reading](#)



Conservation of the endangered Grevy's zebra: the influence of land use patterns on distribution and abundance in the Samburu-Laikipia landscape, Kenya

Kirathe, J.N., and Rubenstein, D.I., (2025)

Grevy's zebra distribution in the Samburu-Laikipia landscape is shaped by seasonal rainfall and pastoralist grazing. During the wet season, zebras concentrate on lands with short, high-quality grasses, while in the dry season they move to protected areas with taller, lower-quality vegetation. Herd size and composition vary seasonally, and effective conservation requires maintaining both wet-season grass growth and dry-season reserves, highlighting how people can support zebra survival.

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