MARA PREDATOR CONSERVATION PROGRAMME

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KENYA WILDLIFE TRUST

QUARTER 3 REPORT | 2024



KWT
KENYA WILDLIFE TRUST

OVERARCHING GOALS

SCIENCE-DRIVEN CONSERVATION OF PREDATORS IN THE GREATER MARA ECOSYSTEM



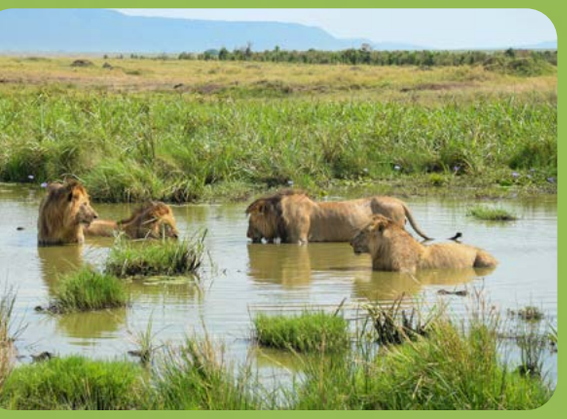
FOSTERING HARMONY

To help community members and landowners understand and appreciate the role of predators in the ecosystem

SCIENCE-DRIVEN SOLUTIONS

To ensure that key stakeholders in the Greater Mara Ecosystem consistently utilise sound scientific information to inform conservation strategies





THRIVING PREDATORS, THRIVING ECOSYSTEM

To support stable, healthy predator populations in the Greater Mara Ecosystem by providing scientific evidence for conservation action

EXECUTIVE SUMMARY

The Mara Predator Conservation Programme (MPCP), Kenya Wildlife Trust's (KWT) flagship program, works to protect predators in the Mara Ecosystem. This is achieved by conducting research and engaging with local communities to foster tolerance and harmonious coexistence with predators. The data from MPCP's research is shared with wildlife agencies and local community conservancies management to inform policies. Through community engagement, the programme seeks to find sustainable solutions that balance the needs of both predators and the people living in the Mara landscape.

The research and monitoring team dedicated much of the third quarter to this year's Intensive Monitoring Session (IMS), marking the 11th year of surveys to estimate annual lion and cheetah densities across Mara's protected areas to analyze population trends. We are pleased to have conducted this year's monitoring in a multi-stakeholder approach alongside Wildlife & Training Research Institute (WRTI) Mara personnel, with WWF–Kenya staff also joining us for several days of the exercise. Ten collared lions and one collared male cheetah were monitored.

During this period, the World Lion Day celebration was held in Olare-Orok village and focused on raising awareness about lion conservation and mitigating human-wildlife conflicts. The event successfully engaged local communities, conservancy wardens, and village leaders in distributing 40 lion lights to protect livestock, while promoting sustainable practices like predator-proof bomas and effective

herding techniques.

Concurrently, the MPCP's educational outreach to schoolchildren demonstrated significant improvements in ecological understanding, with a notable increase in students' knowledge of ecosystems and species interdependence.

KWT's 'Ufugaji Hifadhi' Livelihoods Programme also made strides in financial literacy and pasture management training, equipping participants with valuable skills to improve financial decision-making and livestock productivity. These initiatives are critical for empowering local communities, fostering sustainable rangeland practices, effective community-based enterprises, and ensuring long-term conservation success in the region.

CONTENTS

EXECUTIVE SUMMARY 3

RESEARCH UPDATE 6

Intensive Monitoring Session (IMS) 2024 7

Collared Lion and Cheetah Updates 8

Lion Mortalities 21

Cheetah Updates 22

Earth Ranger 26

COMMUNITY UPDATE 34

Human-Wildlife Conflict Mitigation 35

Conservation Education 37

Livelihoods Programme 40

Workshops and Training 44

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RESEARCH UPDATE



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Intensive Monitoring Session (IMS) 2024

On August 1, we commenced the eleventh year of our three-month intensive monitoring session (IMS), which continues until the end of October. We will work on the data from this year's IMS in the upcoming months, which includes IDing, validating, and running analysis, and we will present the complete results of this year's annual monitoring the beginning of next year.

During August and September, the team covered **7,010 kilometers** across the Masai Mara National Reserve, the Mara Triangle, and the surrounding Mara conservancies. We recorded **194** Lion sightings and **24** Cheetah sightings during the two IMS months.

We are pleased to report that personnel from the **Wildlife Research and Training Institute (WRTI)** joined and participated in predator monitoring across the study area. The goal for WRTI's participation and analysis is to contribute to the National Wildlife Census report, which is currently in progress across the country. **WWF-Kenya** team also monitored alongside the research team for a few days.



WWF-Kenya team, led by Dr. Lesilau, Lion Programme Coordinator (third right) pose for a photo with MPCP research assistants, Saitoti (extreme left) & Calvin (third left) and Felixie, KWT's Communications Officer (second right)

Collared Lion and Cheetah Update

In this reporting quarter, 10 lions were transmitting data from active collars, distributed across both the National Reserve and the adjacent conservancies. Furthermore, we deployed a collar on a male cheetah in Ripoi Conservancy.

The Collars for Conservation initiative is important in enhancing both tracking and data collection, as well as strengthening protection measures for these key predators within the ecosystem. This ongoing effort contributes to a more comprehensive understanding of predator movement patterns and helps mitigate human-wildlife conflict.

The spatial distribution of these collared animals can be seen in Figure 1.

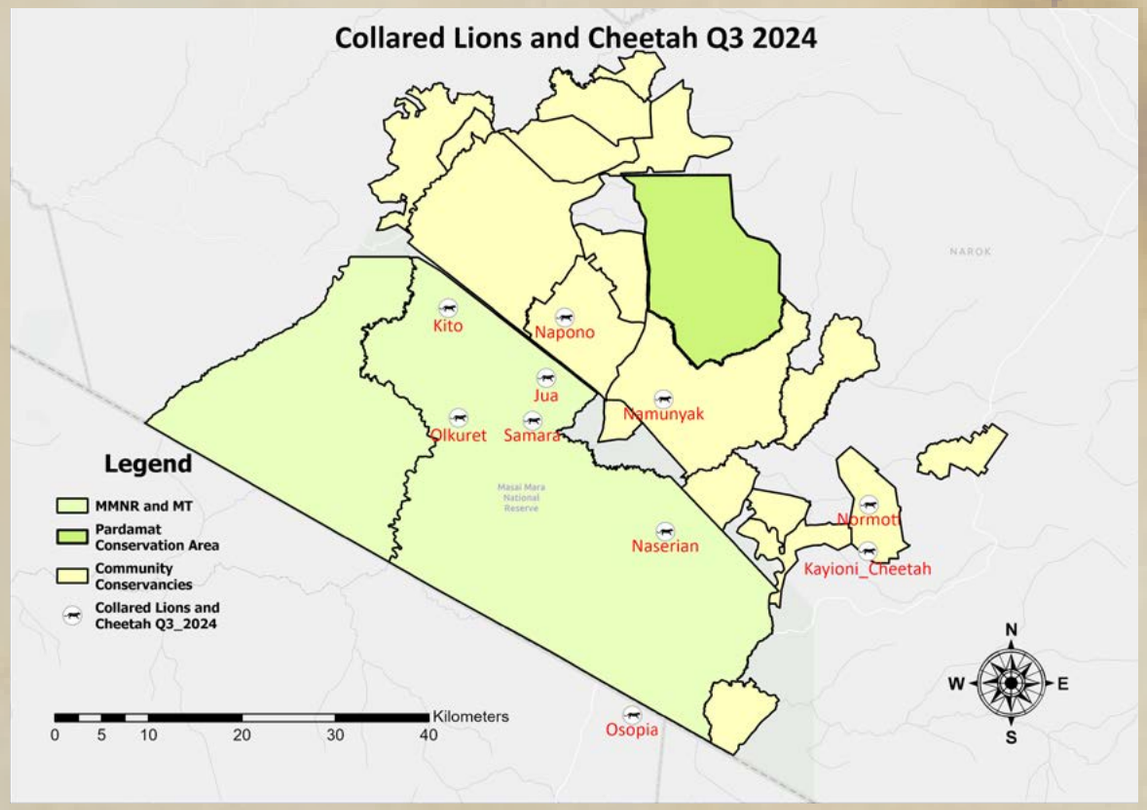


Figure 1. The ten active lion collars and one cheetah collar in Q3.

Kito

During this quarter, we continued tracking Kito's movements from the Marsh Pride. She has primarily remained within the MMNR, with fewer excursions into community areas compared to the last quarter, likely due to sufficient prey within her territory.

Our Lion Ambassador in Olare Orok village has successfully monitored her movements when she ventures out to community areas, and there has not been any conflicts reported from this pride.

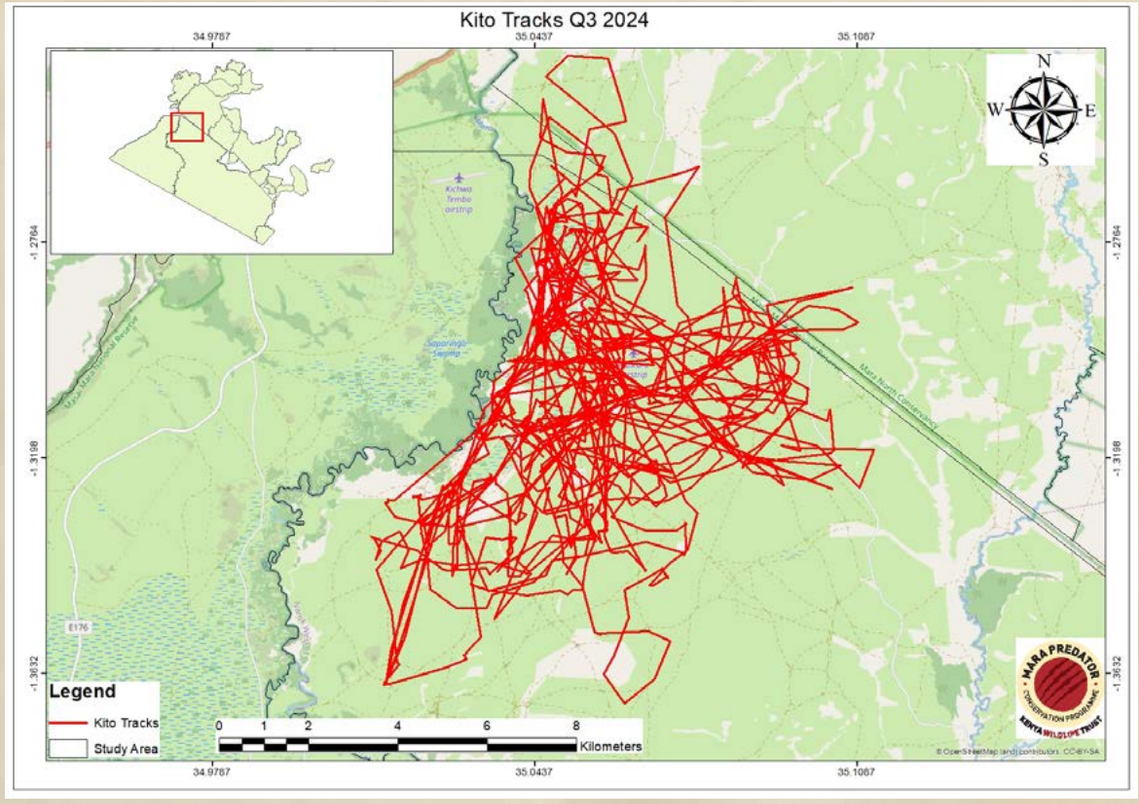


Figure 2. Kito's Tracks.

Namunyak

In this quarter, the collared female Namunyak and her sister Namelok have exhibited interesting movements. They roamed beyond their usual territory near Naboisho, traveling through Pardamart Conservation Area (PCA), a small shopping center, and nearby community settlements. The females eventually made it back safely to Naboisho Conservancy.

The collar data also shows that the sisters made a sporadic trip to the east of Naboisho, which borders Nashulai Conservancy. They have also been frequenting the Leopard Hill and Mara Nyika Kopje hills. We are eagerly anticipating new cubs in the pride, as the four Lemek males from Olare Motorogi Conservancy have been mating with both Namunyak and Namelok.

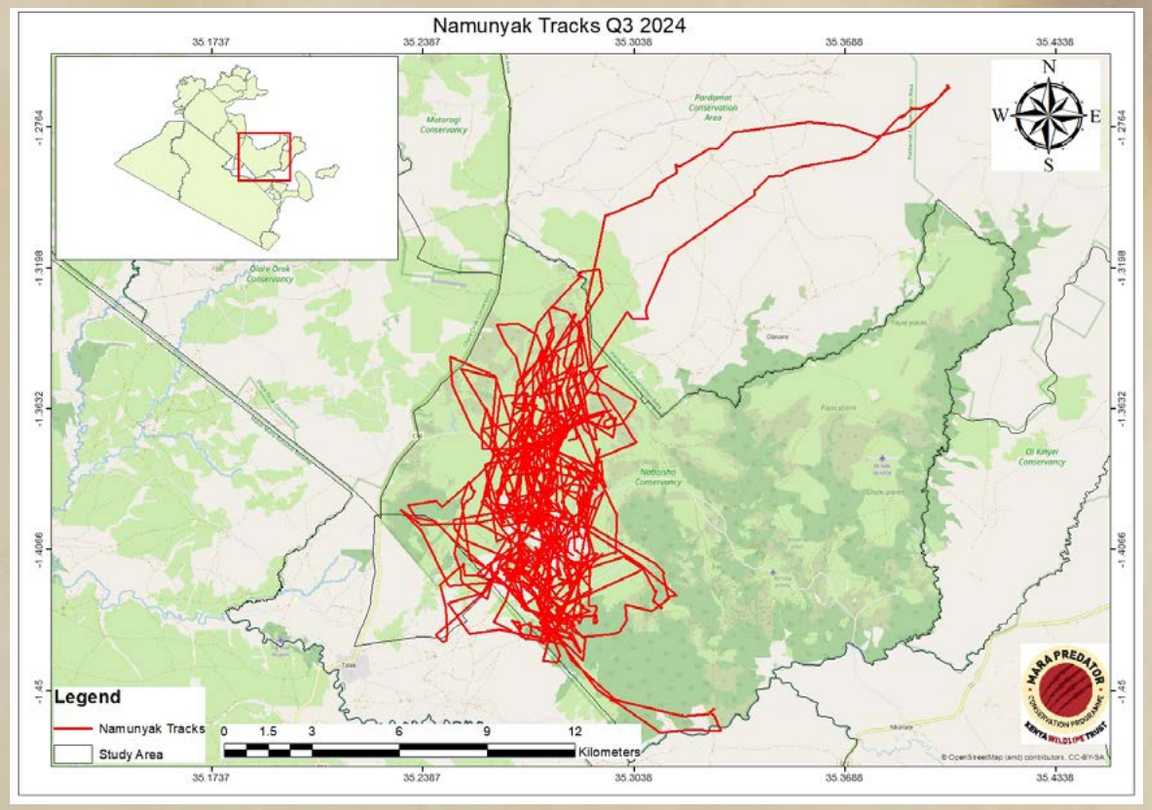


Figure 3. Namunyak's tracks



Photo ©2024 Felixie Kip

Napono

Napono, one of the Engoyanai females, was collared after Nashipai's death. During this quarter, she and her pride mates have mostly stayed within Olare-Motorogi Conservancy, with minimal movement beyond its borders. We are actively tracking her movements to ensure she is kept out of potential conflict situations when venturing into community areas.

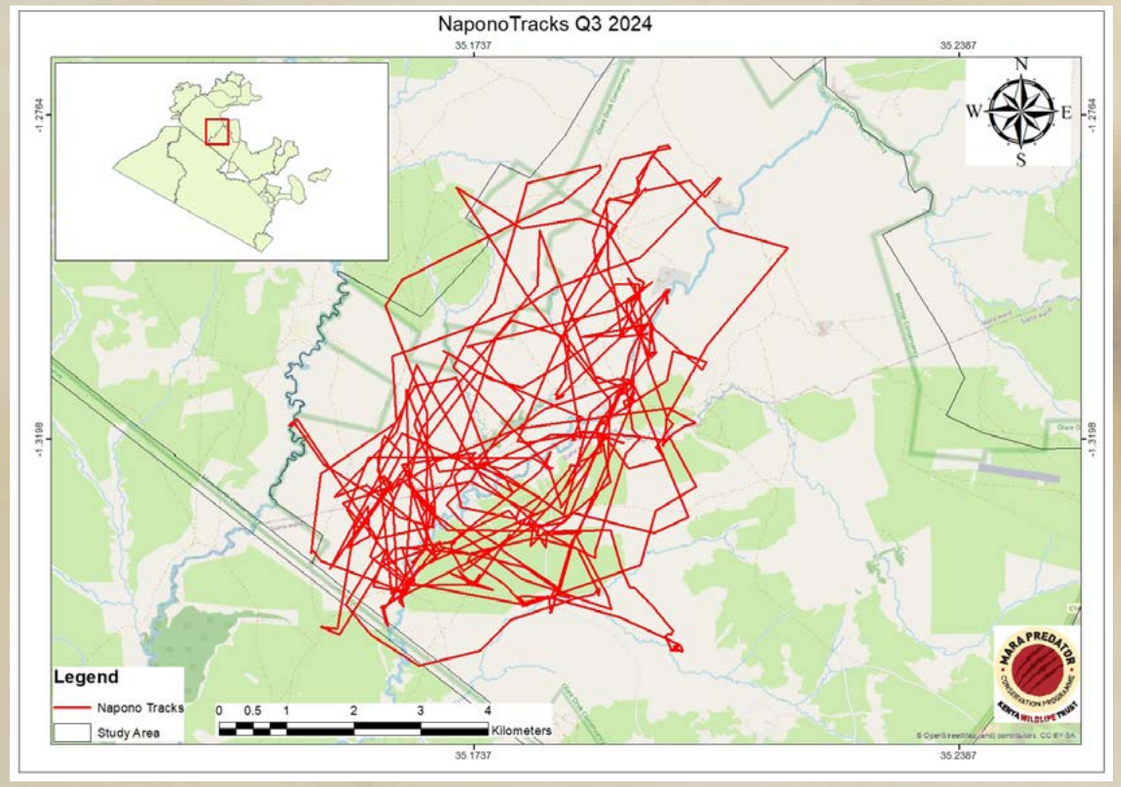


Figure 4. Napono's Tracks.

Nailois

During this reporting quarter, Nailois' tracks showed a significant movement across the pride's territory. While she spent most of her time in Isaaten Conservancy, where her collar was deployed, she also ventured into Nashulai and Ripoi conservancies (Figure 5).

The space between these protected areas is community lands with high human settlement, resulting in frequent interactions between lions and the community. During our intensive monitoring session, Nailois was in Isaaten Conservancy where we also found other pride members with new cubs.

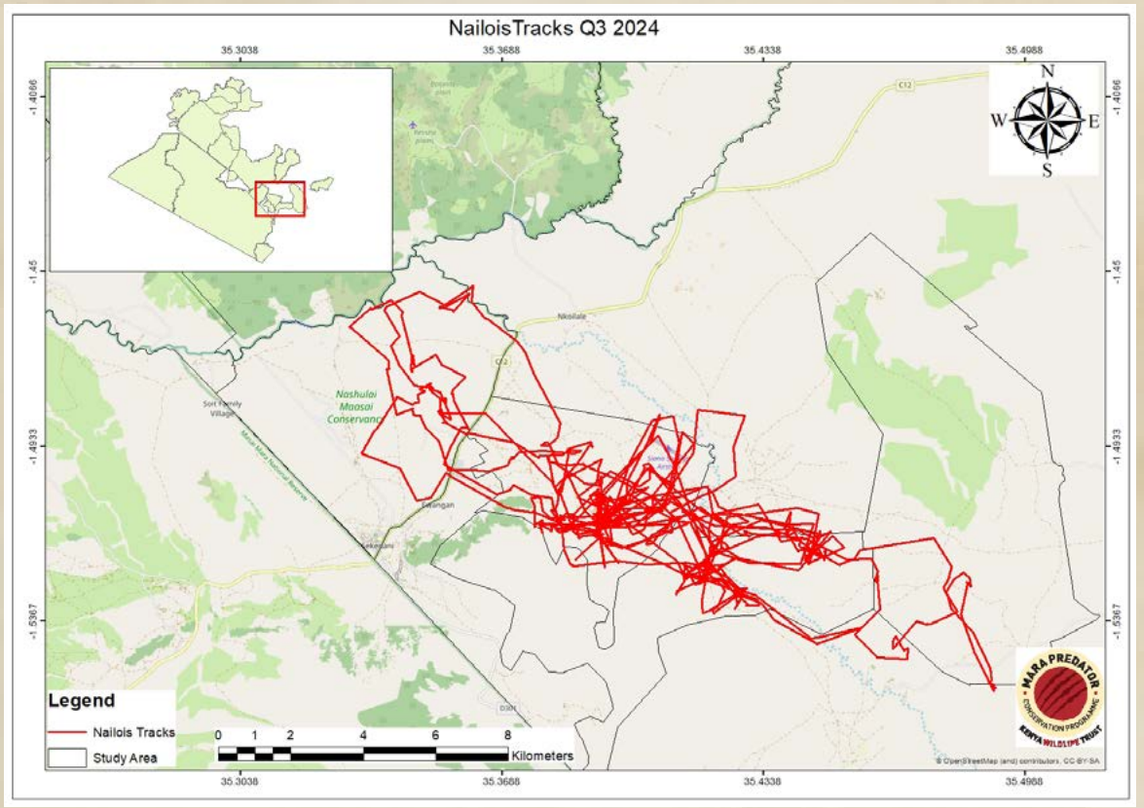


Figure 5. Nailois's Tracks.

Jua

After Jua's collar replacement, we continued to monitor her movements. Along with her pride mates, she has been moving between Double Cross and the Talek River general areas, (Figure 6). This quarter, reports of livestock depredation involving her pride have emerged, particularly when livestock are brought into the National Reserve.

A splinter group from the pride, including sub-adult males, has also been involved in depredation incidents along the Olare Orok River at the reserve's edge, where illegal night grazing often occurs. County officials are actively working to control these unauthorized livestock activities.

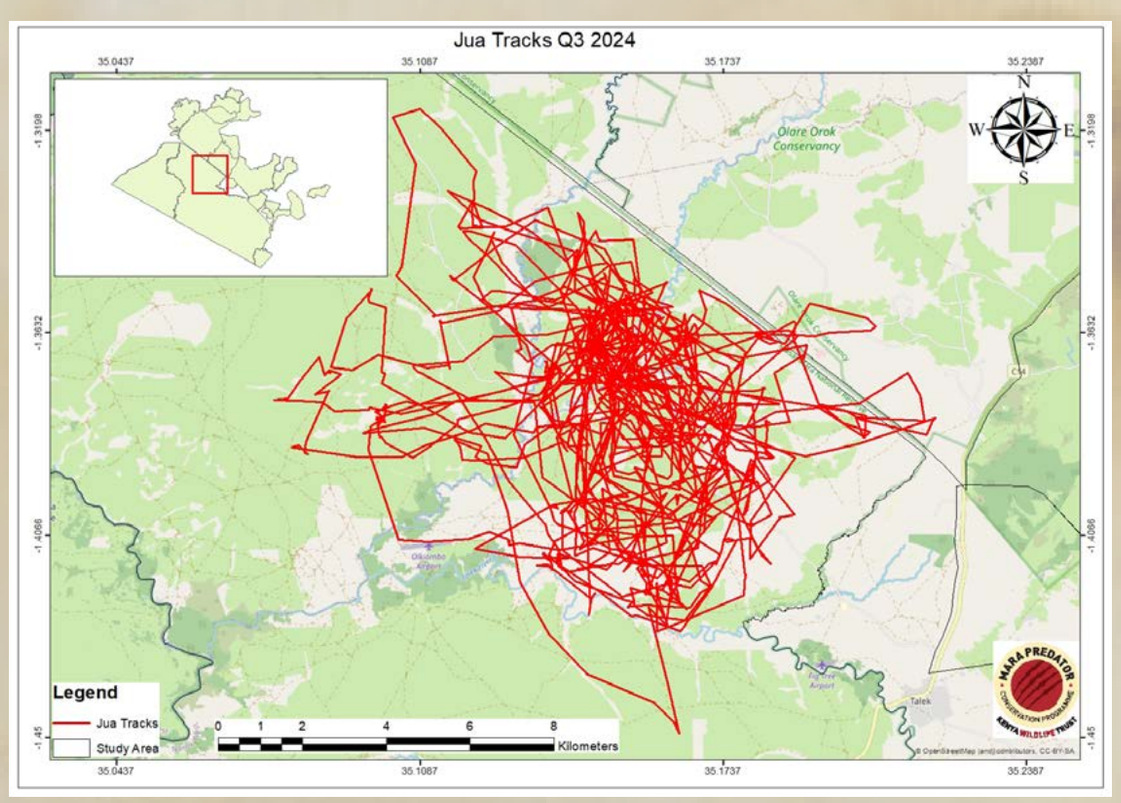


Figure 6. Jua's tracks

Naserian

Naserian, from the KWS/Sarova/Kisinja pride within the National Reserve, has primarily stayed within the Reserve boundaries. During this reporting quarter, she and her pride mates briefly ventured into Siana Conservancy, where they spent a few days before returning to the National Reserve.

This pride has not been reported to have been involved in any predation incidents with livestock from the adjacent communities. We continue to monitor Naserian's movements closely, particularly when she, together with her pride mates ventures outside the National Reserve to help avert any potential livestock conflict.

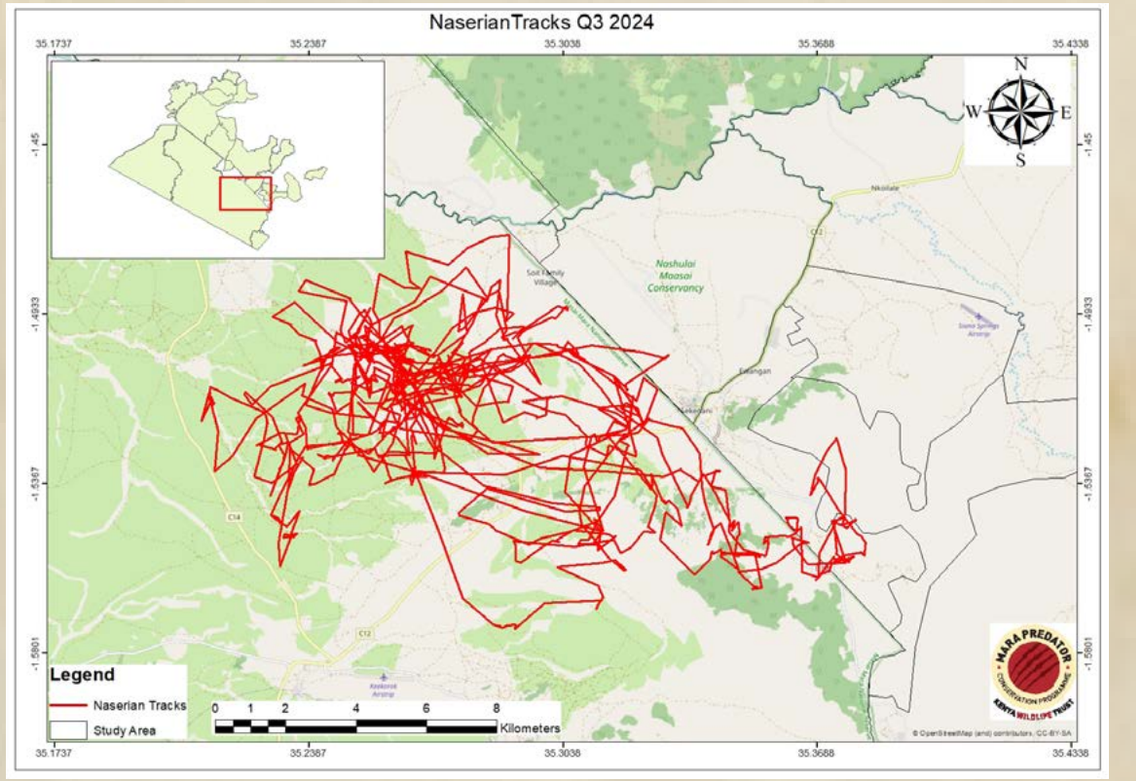


Figure 7. Naserian's tracks



Photo ©2024 Felixie Kip

Samara

Samara and the rest of the Fig Tree pride seem to be spending most of their time in their original territory according to the collar data from this quarter (Figure 8). They had left the area around Fig Tree Camp initially after the Rongai males invaded their territory, and fled to Olerai Conservancy to protect their cubs at that time.

With the Rongai males now deep in the Reserve, it looks like Samara and her group are back to their territory with reports of some females having a new set of cubs.

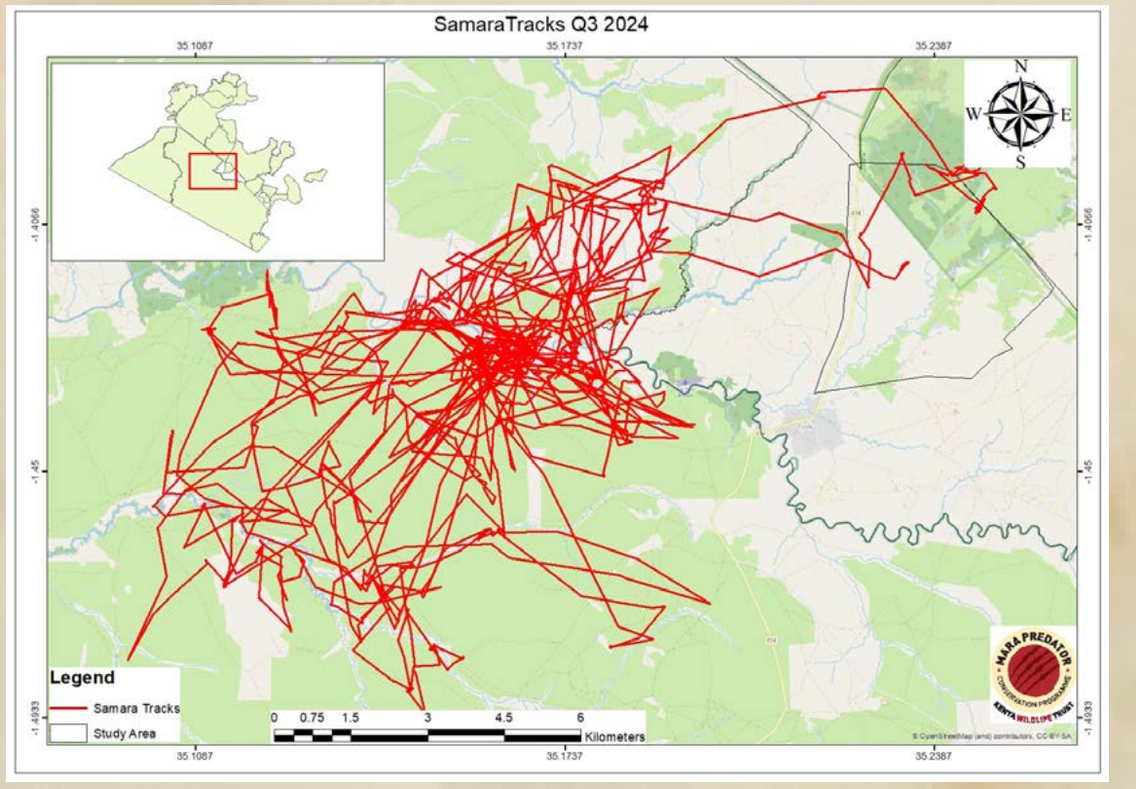


Figure 8. Samara's tracks

Normoti

Normoti and her sister Narasha have been moving calmly within the conservancies. According to the collar data, both females recently gave birth in the Mara Siana hills. They have since moved their cubs to a safer location within their territory, specifically around Olmoti, Zebra Plains Camp, and Mara Siana Camp.

Interestingly, the data also reveals that another collared female, named Nailois by the neighboring Isaaten Conservancy, has come close to Normoti's cubs' lair, potentially endangering the cubs. Recently, we observed Normoti with four cubs, fathered by the three Enesikiria males.

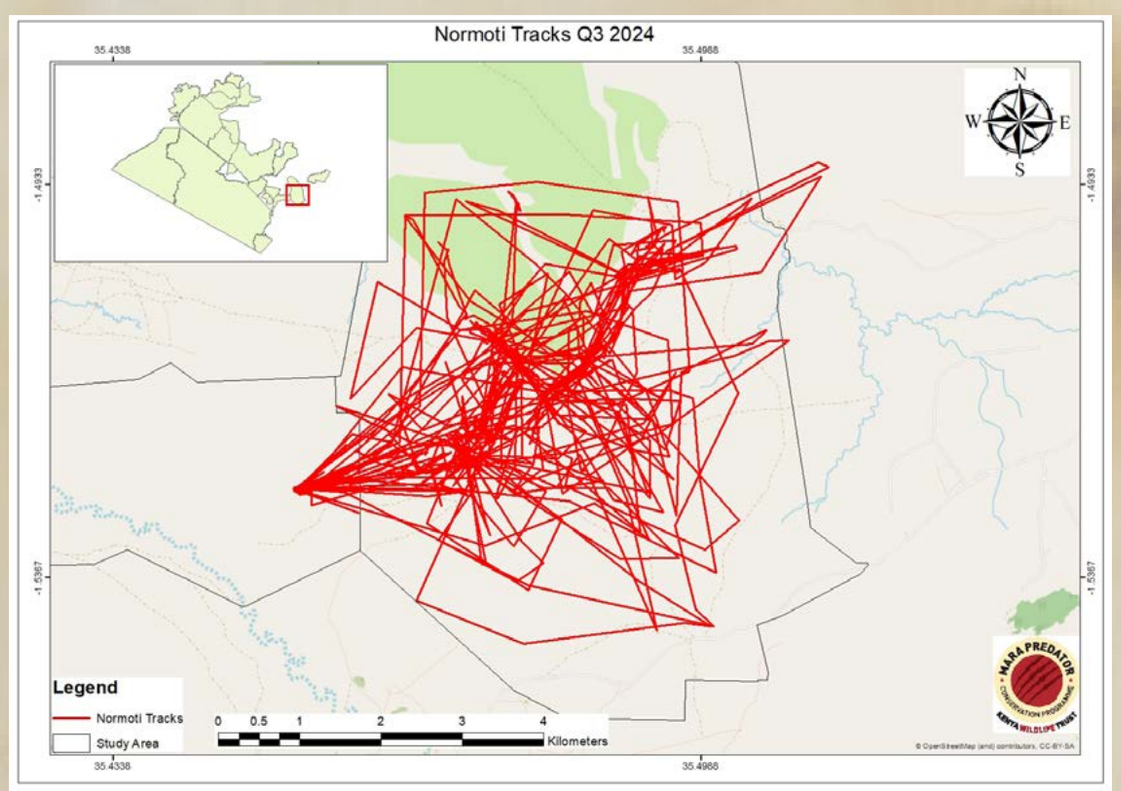


Figure 9. Normoti's Tracks

Olkuret

After Olkuret was collared in Olare-Motorogi Conservancy, he immediately moved into the National Reserve (Figure 10). He has frequently been spotted with the Fig Tree Pride, though he has occasionally ventured to Olkiombo, Rhino Ridge, and the Topi areas.

He has now returned and is with the Fig Tree Pride, which currently has new cubs in the National Reserve.

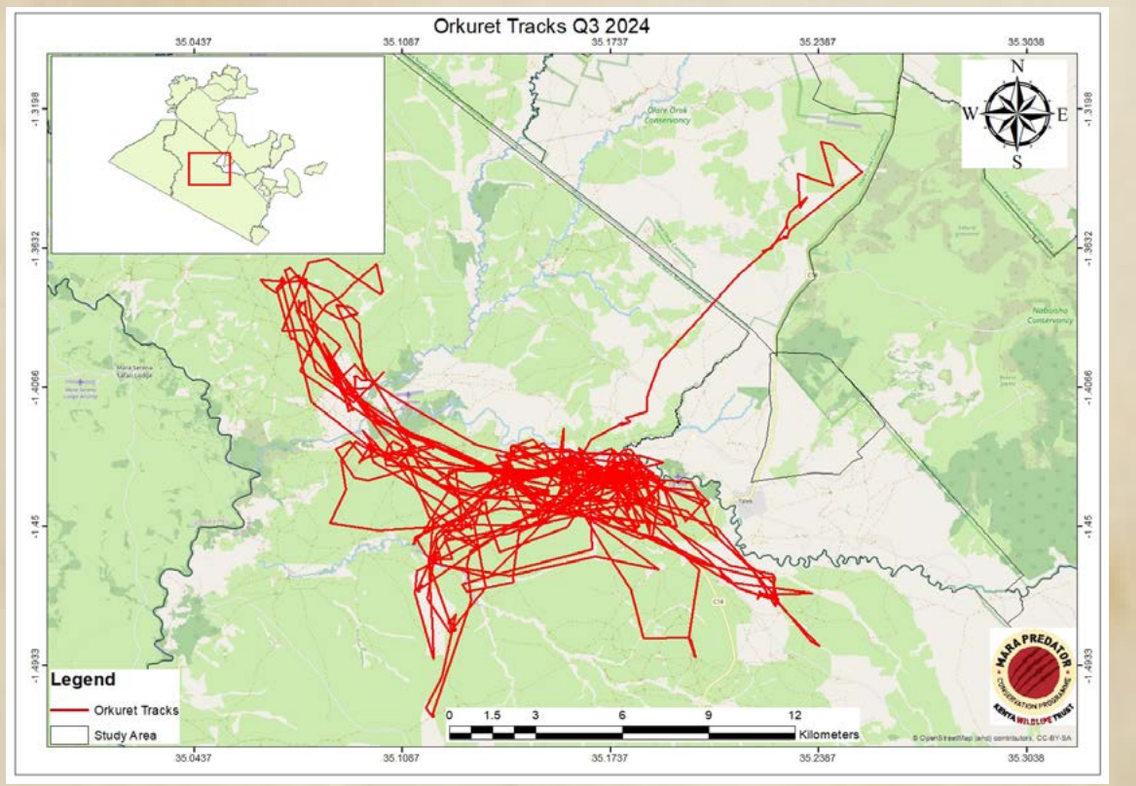


Figure 10. Olkuret's Tracks.

Osopia

Osopia and his coalition partner roam the southeastern section of the Reserve, close to Olderkesi Conservancy and the Serengeti National Park border. This region has been prone to frequent human-lion conflicts, often triggered by cattle encroaching into the Reserve.

During this reporting quarter, Osopia and his pride mates have mostly spent their time on the Tanzanian side, with occasional crossings back into Kenya (Figure 11). We continue to track his movements to better understand his spatial and temporal patterns during the collaring period.

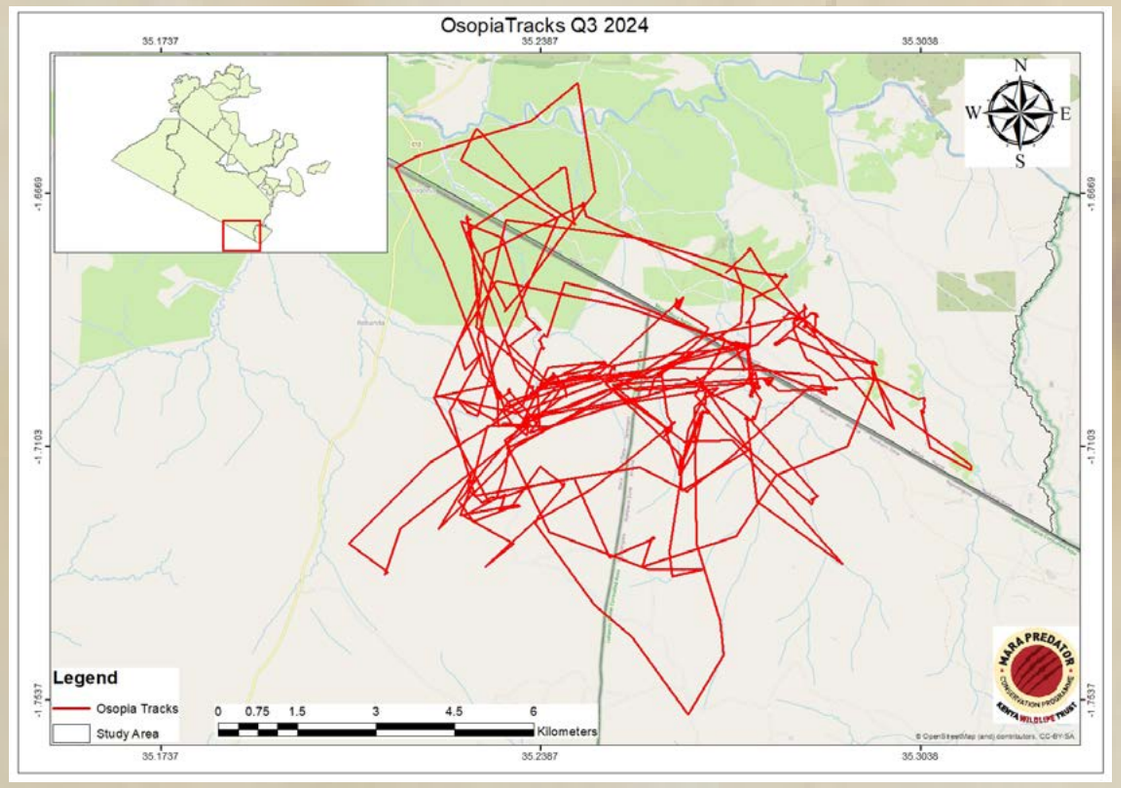


Figure 11. Osopia's Tracks.

Lion Mortalities

Nashipai

At 17 years old, Nashipai, one of the oldest females from the original Engoyanai Pride, was collared in March 2024 to track her movements, especially since she was venturing outside the protected area. Tragically, she sustained severe spinal injuries during a fatal territorial fight, and, coupled with old age, she eventually succumbed along Olare Orok river within the National Reserve in August 2024.

Nashipai leaves behind a legacy, having raised numerous cubs to maturity, strengthening their pride.

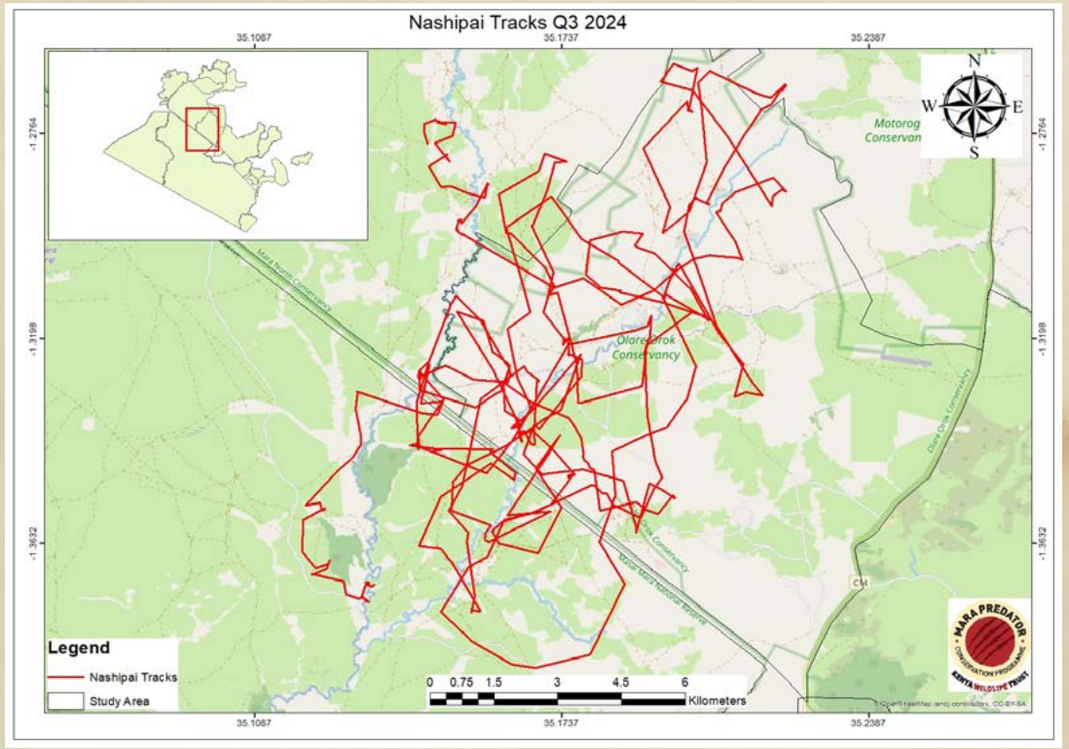


Figure 12. Nashipai's Tracks before her death.

Tisha

Tisha was born in September 2021 along the Rhino Ridge area. On 4th September 2024, around Saningo crossing in the Reserve, Tisha was killed. Upon hearing of the incident on the 5th of September, we immediately rushed to the scene to confirm her identity.

The rangers and guides suspected that she was killed by Topi Pride members, however, this is incorrect and no one witnessed the fight. She was likely killed during territorial disputes with lionesses from a different pride which is most likely the Enkuyanai Pride as they are also extending their territory to double cross.

Cheetah updates

Births and Mortalities

During the last quarter, we didn't record any births. We however suspect that one female, Neema gave birth in Mara North Conservancy but lost the litter in the lair.

We currently suspect that two females, Kulete and Nagol have cubs in the lair but have not brought them out yet.



Nagol

Dispersal Events

We recorded one dispersal event over the last quarter where Sila's daughter Kara successfully raised her three cubs to independence. The litter consisted of two females a male and they left their mother towards the end of July at the age of approximately 12 months which was quite early considering that the average dispersal age for cheetahs in the Mara is 16 months.

The group has now separated, with recent sightings of one of the females on the northern side of Mara North and in Naboisho Conservancies.



Namunyak & Cub

New Individual



New Male

We also recorded one new individual in the last quarter. The adult male was seen in Naboisho Conservancy where we received a photo for identification purposes, but when we tried looking into our database, we couldn't find a match.

A few days later one of our team members found him still in Naboisho and judging from his shy behavior, he must have come from outside areas without tourism.

Collared Cheetah Update

Kayioni

In September, we deployed our first cheetah collar since 2017 to an adult male in Ripoi Conservancy. The male was part of a coalition of three who appeared last year in the conservancy. Unfortunately, they were killing and eating shoats and we lost two of the three males likely due to human-wildlife conflicts.

The remaining male was a perfect candidate to collar as we can monitor him in near real-time and hopefully prevent further conflict and retaliation events.

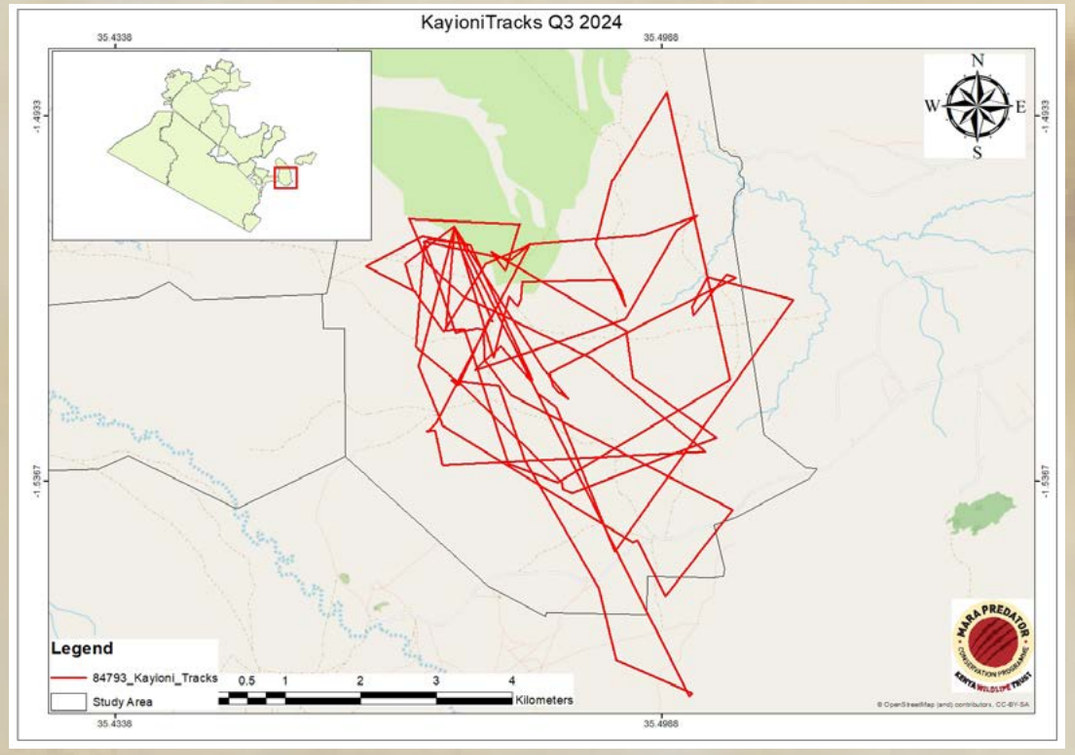


Figure 13. Kayioni's tracks.



Kayioni

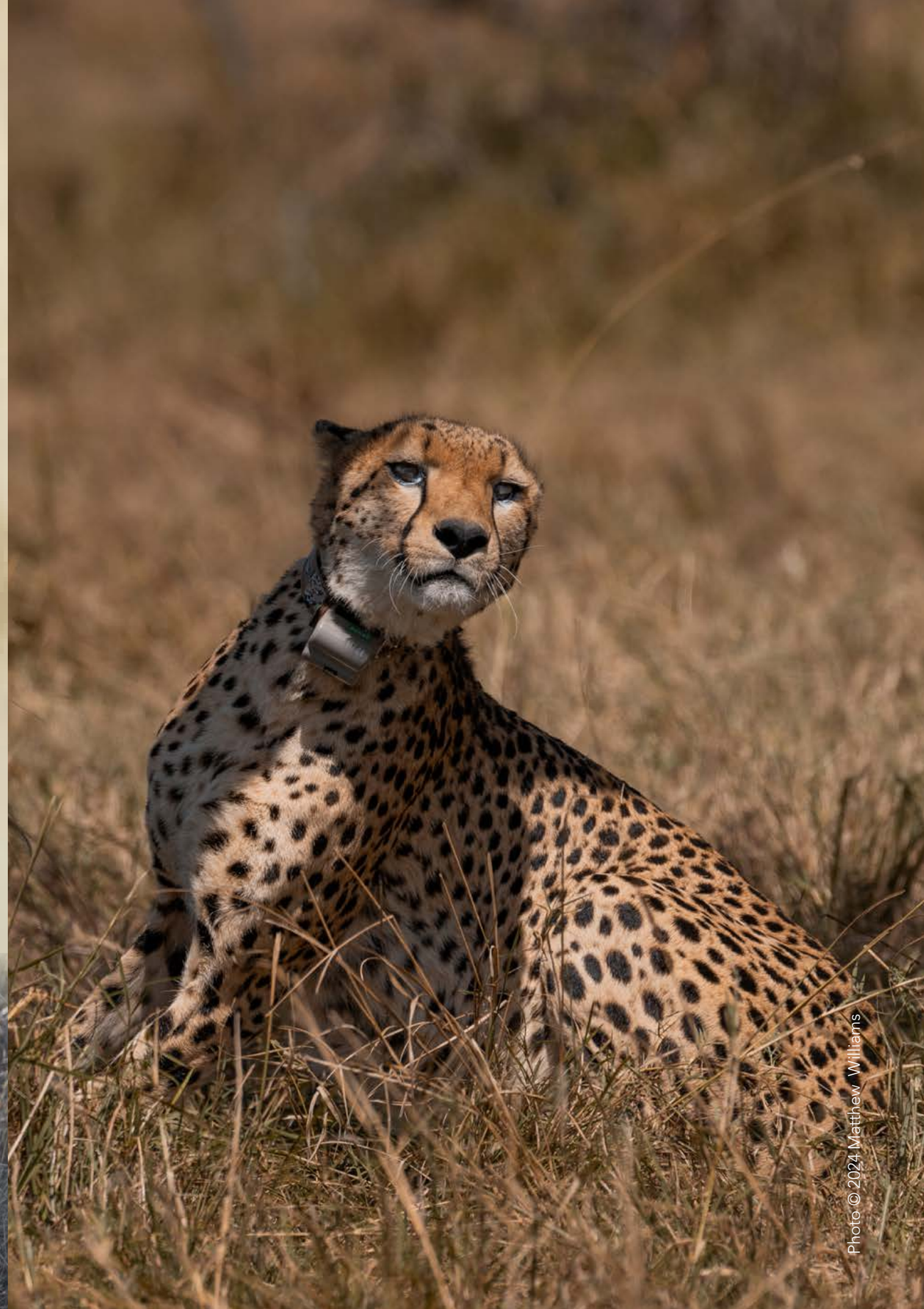


Photo © 2024 Matthew Williams

EarthRanger

Collars For Conservation

Through the implementation of Earth Ranger, an innovative conservation management system, Kenya Wildlife Trust has enhanced its wildlife monitoring capabilities. The platform serves dual purposes: tracking wildlife movement patterns and managing community-based data. It efficiently processes information from multiple sources, including monitored predators, GPS-tagged livestock, and reported community conflicts. This comprehensive data collection system enables us to analyse animal behaviour patterns and develop predictive models, ultimately supporting more effective conservation strategies.

Quarterly data analysis focuses on tracking collared animal movements and analysing human-wildlife conflict patterns in local communities. The findings are presented through simplified visualizations to highlight key trends and activities. The system now generates reports on livestock incidents, identifying responsible predator species and creating detailed maps showing locations of collared individuals in relation to livestock impacts.

Furthermore, Lion Ambassadors receive automated alerts when monitored predators move from protected areas into community zones. This near real-time notification system supports the primary goal of reducing human-lion conflicts through rapid response and proactive management.



Photo © 2024 Felixie Kipngetich

Cattle GPS Tagging

Deploying GPS collars and tags has proven invaluable in monitoring wildlife for conservation purposes. MPCP is piloting a study on the correlation between livestock and lions within the Mara Ecosystem. This can be achieved by collaring lion prides that reside in areas adjacent to community settlements and ear tagging cattle that overlap with these prides.

The aim is to establish consistent communication channels between the Lion Ambassadors and the MPCP research team, and regular updates on the whereabouts of lions, including individual lions and prides, which will be shared with the local communities.

This information will serve as an early warning system, enabling communities to be aware of lion presence and identify areas to avoid during grazing and utilization of natural resources.

Again, it helps reduce the likelihood of encountering lions, thereby preventing livestock depredation incidents, attacks on humans, and subsequent retaliatory actions. These objectives can be achieved through direct interactions with herders and conducting outreach sessions with households, fostering a better understanding of lion behaviour and promoting proactive measures for human-lion coexistence.

Dominic Sakat deploying cattle tag within Naboisho Conservancy



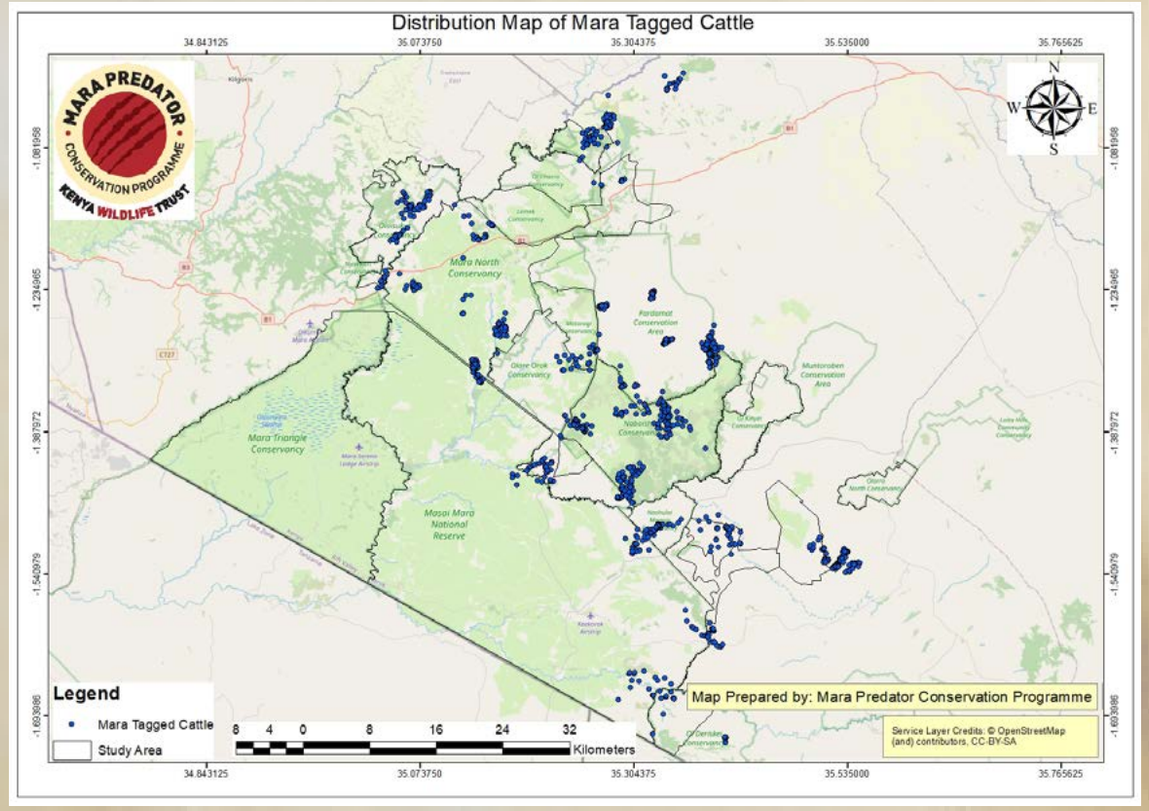


Figure 14. Distribution map of Mara tagged cattle.

Key Information Derived from Tagged Cattle.

The data from the GPS-tagged cattle provides valuable insights that can inform conservation efforts. By analysing the relationship between the movements of collared lions and the tagged cattle, we can better understand how they utilize the shared landscape.

This allows us to gain insights into factors like pasture management and areas prone to livestock depredation, by correlating the cattle data with other information sources such as satellite imagery and field observations by Lion Ambassadors. These insights are discussed in more detail in the sections that follow.

Relationship between Collared Lions and Tagged Cattle.

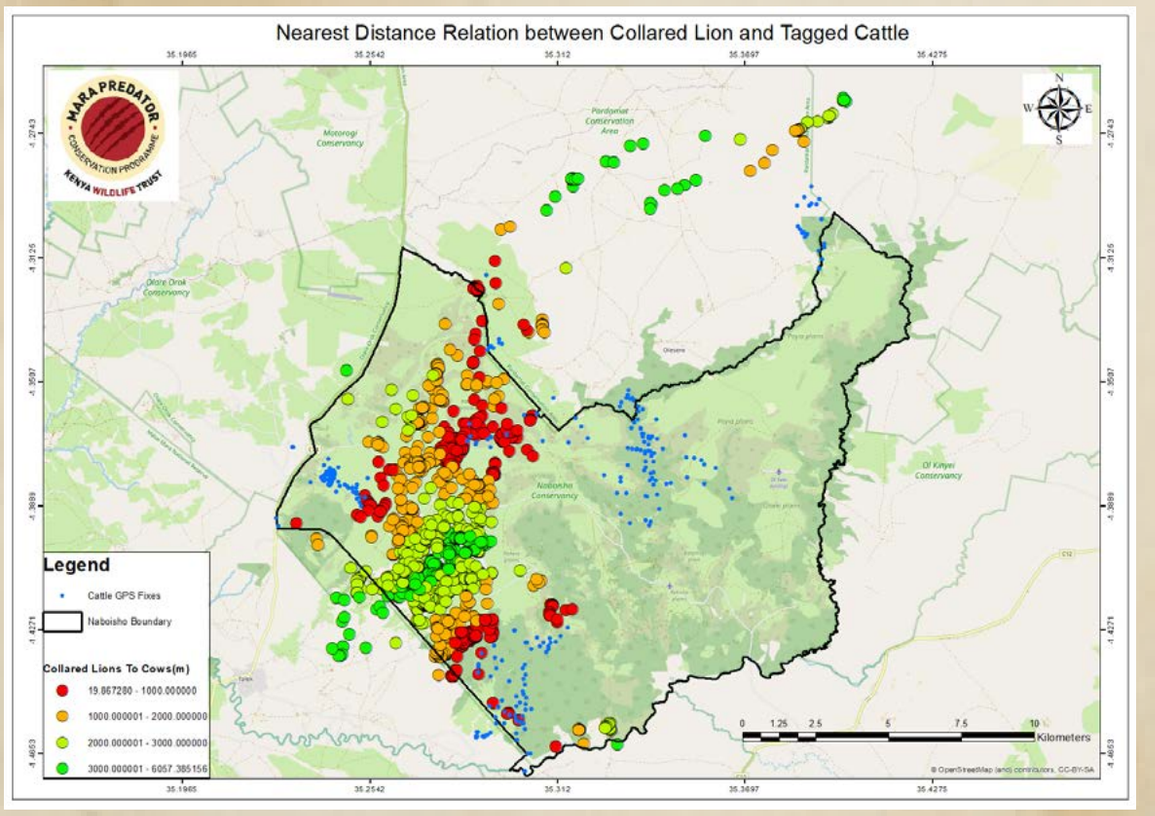


Figure 15: Proximity distance between a collared lion and tagged cattle- a case study from Naboisho Conservancy.

The illustration in Figure 15 depicts the spatial relationship between the collared lions and GPS-tagged cattle, revealing instances where they come in proximity within 19 meters of each other. This level of detail allows us to pinpoint the specific areas where lions and livestock are sharing the same space, which is crucial information for targeted conservation measures.

By identifying these high-risk zones, we can prioritize the deployment of preventative tools, such as lion deterrent lighting and reinforcing livestock enclosures (bomas), to help reduce the likelihood of human-wildlife conflicts in these hotspot locations.

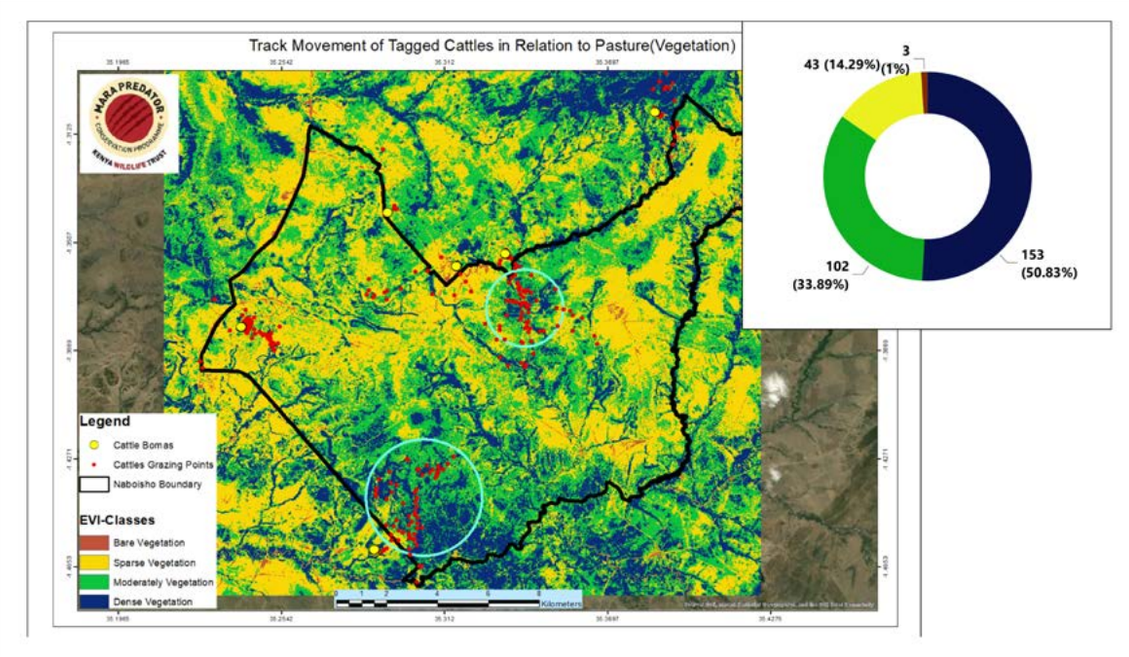


Figure 16. Tagged cattle in relation to vegetation

Enhancing pasture management within the Mara ecosystem is a key priority, as it directly impacts local livelihoods. The livestock GPS tagging initiative has provided us with important data on cattle movement patterns across the different grazing areas. This information allows us to evaluate the productivity and suitability of the community's existing grazing fields in a more evidence-based manner, moving beyond reliance on traditional knowledge alone.

Leveraging these data-driven insights, we can now design more effective pasture management training programs tailored for the local communities. By transitioning from a solely traditional approach to one grounded in scientific analysis, we aim to empower the communities to optimize grazing resource utilization and, in turn, boost their overall livelihoods.

Lion Ambassador Conflict Report update:

We have successfully integrated Earth Ranger for community and livelihood data collection. In the last quarter, we developed a custom data model to capture reports from the community, including incidents like livestock depredation for Lion Ambassadors, wildlife sightings, human-wildlife conflicts, and other events. This new model enables us to effectively track nearly every incident or event occurring across the Mara.

Additionally, during this quarter, we provided training to our Lion Ambassadors and conservation agents to enhance the efficiency of data collection throughout the Mara. The training addressed the challenges they have faced over the years, and as a result, we are now recording more data across the Mara than before. Figure 17 depicts the quarterly monitoring data collected by the lion ambassadors throughout the Mara ecosystem.

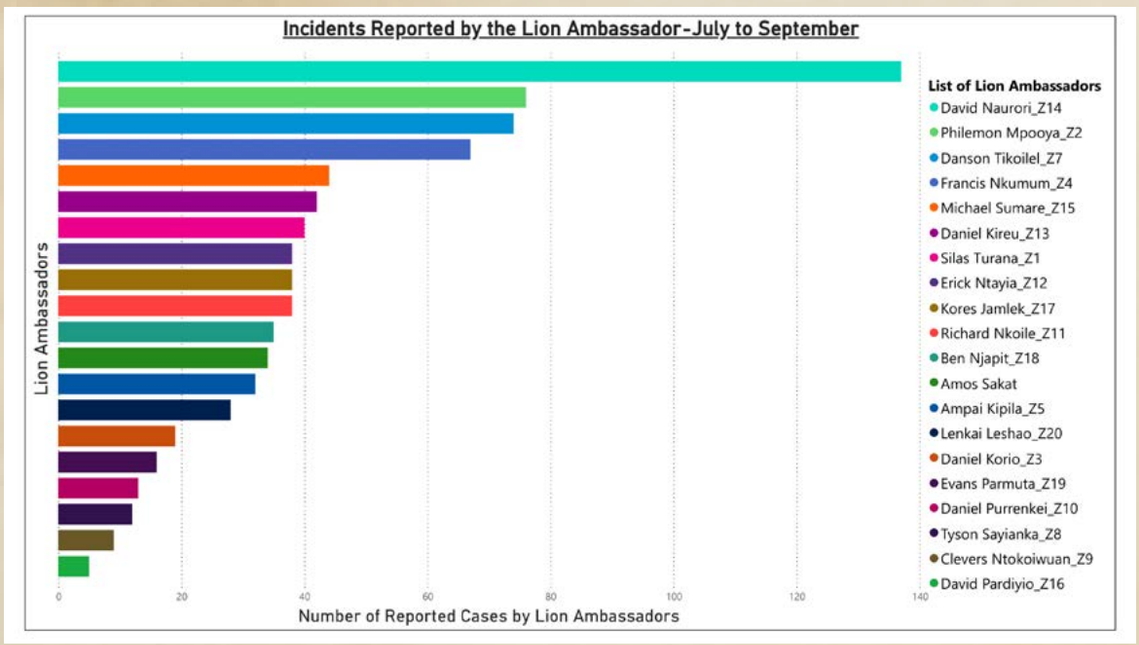


Figure 17. Incidents reported by the Lion Ambassador from July to September.

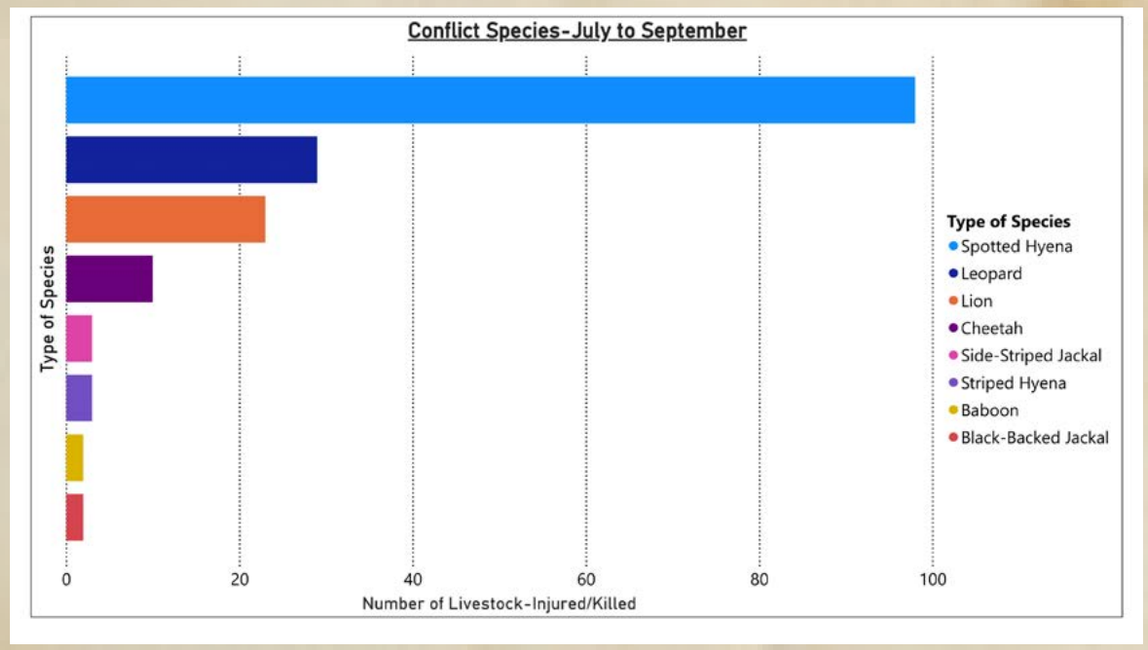


Figure 18. Conflict Species from July to September.

The graphs provide insights into wildlife-livestock conflict from July to September. The chart in Figure 18 highlights the primary predator species responsible for livestock injuries and fatalities, with spotted hyenas causing the most incidents, followed by leopards and lions. Other species like cheetahs, side-striped jackals, striped hyenas, baboons, and black-backed jackals had fewer conflicts.

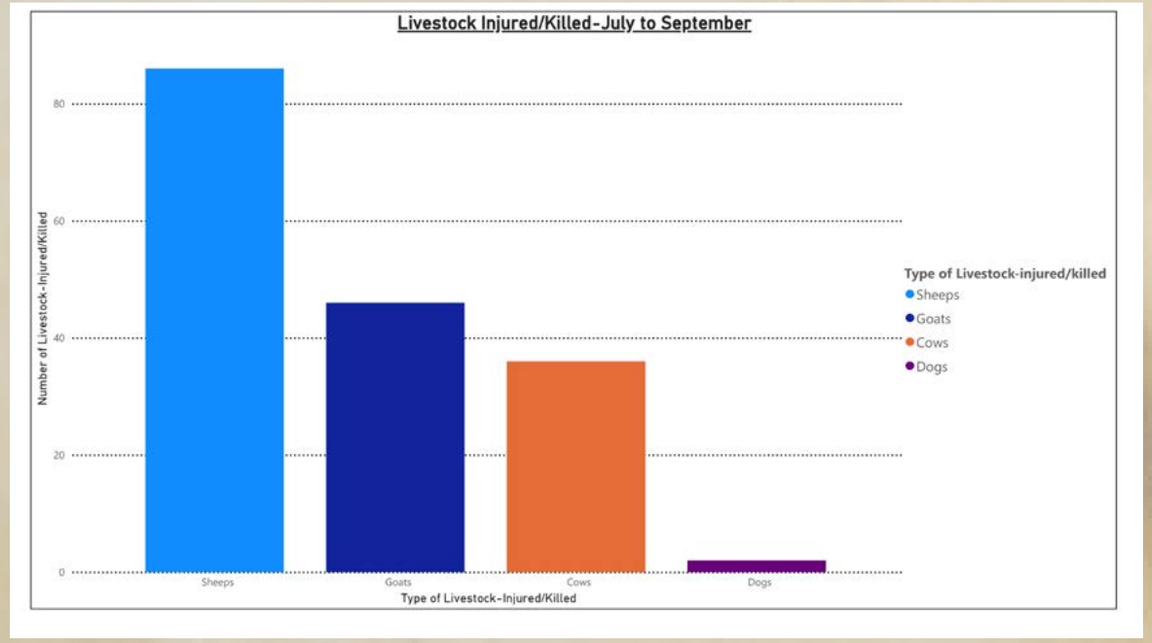


Figure 19. Livestock injured/Killed from July to September.

Figure 19 focuses on the types of livestock affected, with sheep being the most targeted, followed by goats and cows, while dogs were affected the least. Together, these graphs suggest that smaller livestock such as sheep and goats are highly susceptible to predation, primarily from spotted hyenas, indicating a need for targeted mitigation measures to protect vulnerable livestock from specific predators.



Photo © 2024 Felixie Kip

COMMUNITY UPDATE



Photo ©2024 Felixie Kip

HUMAN-WILDLIFE CONFLICT MITIGATION

World Lion Day Celebration

World Lion Day, observed annually on August 10th, aims to raise awareness about lion conservation, the threats they face, and strategies to reduce human-wildlife conflicts in areas where lions and people coexist.

This year, the MPCP research and community teams partnered with local community members, conservancy wardens, and the area chief in Olare-Orok village to commemorate the day. The event focused on three key objectives: raising awareness about lion conservation in the Mara ecosystem, distributing and installing lion lights for affected families, and sharing best practices for mitigating human-predator conflicts.

These measures included the use of lion lights, predator-proof bomas, and proper livestock herding techniques to reduce conflicts between people and lions.



Area chief issuing lion light to a community member © Sam Whitton/Governors' Camp



MPCP's Community Outreach Officer engaging with community members during the event © Sam Whitton/ Governors' Camp

To evaluate the success of the event, a detailed questionnaire was distributed, covering various aspects of predator conservation. Participants underscored the importance of strengthening human-predator conflict mitigation efforts, including the provision of additional lion lights, predator-proof bomas, and the implementation of early warning systems through lion ambassadors. They also emphasized the need for better training for herders to effectively manage and reduce conflicts.

Suggestions for future improvements included holding more community meetings and enhancing the involvement of women in these discussions. All participants expressed satisfaction with the event, noting key takeaways such as a deeper understanding of lion populations and effective strategies for minimizing conflicts with predators.

Additionally, there were calls to celebrate World Lion Day more frequently to sustain ongoing awareness and educational initiatives. These insights were gathered from all participants who attended the World Lion Day celebration in Olare.





Community group photo (left) Sam installing light to boma (right) © Sam Whitton/Governors' Camp Collection.

40 lion lights installed in **10 bomas** which were earlier invaded by predators

The current **lion conservation status** was shared with participants

CONSERVATION EDUCATION

Understanding the Ecosystem's Balance



Loigero Wildlife Club Members engaging with MPCP staff

Conservation education plays a vital role in imparting essential knowledge to schoolchildren about the importance of wildlife and ecosystem preservation. As part of its ongoing outreach efforts, MPCP conducts term-based classes for wildlife club members on various conservation topics.

This quarter, the MPCP Community Outreach Officer engaged with wildlife club members from four schools: Loigero Primary School, Molibany, Olkurroto, and Irbaan.

The sessions focused on helping students understand the ecosystem, the three trophic levels within it, and the interdependence of all life forms.

These lessons aimed to foster an appreciation for the web of life and the critical relationships that sustain the environment. To assess the effectiveness of the training, participants completed both pre- and post-training questionnaires. The results revealed a substantial improvement, with an average of 37.2 students providing correct answers to the questions after the training. This marked increase from the pre-training average underscores the training's success in enhancing students' understanding of the ecological concepts covered. The higher average indicates that the majority of students now have a solid grasp of the key topics assessed.

The data above demonstrates a significant improvement in students' understanding of ecological concepts following a training intervention. Before the training, students had difficulty grasping key concepts such as ecosystems, producers, consumers, and decomposers, with an average of only 22 correct responses out of 44 students. After the training, this average increased substantially to approximately 37.8 correct responses out of 44 students.

This trend indicates that the training effectively addressed misconceptions and enhanced students' comprehension of essential ecological principles.

Conservation Leadership Programme

Supporting Future Leaders

We're glad to see students move beyond wildlife clubs, as providing conservation education to future generations through training, information sharing, and advocacy is essential.

Kenya Wildlife Trust's Conservation Leadership Program (CLP) partners with foundations and individuals to expand conservation education for Kenyan youth. It offers full funding to a select group of gifted students with leadership potential who would not otherwise have the opportunity to pursue a quality education. These students are selected to study wildlife conservation and community development courses at the undergraduate level.

Two beneficiaries from the Greater Mara Ecosystem, Jemimah Koiskir and Felix Kereto, enrolled in the Wildlife Research Training Institute (WRTI) and were supported by CLP. Felix, a past member of a wildlife club, and Jemimah both studied for diplomas in wildlife management at WRTI and joined MPCP on industrial attachment. They supported our community and research teams and contributed to MPCP's objectives.

"IN THE LAST 2 YEARS AT WRTI, I HAVE TRAVELED ACROSS KENYA AND SEEN THE EFFORTS OF CONSERVATIONISTS IN PROTECTING WILDLIFE AND ECOSYSTEMS. IT HAS BEEN INSPIRATIONAL."

FELIX KERETO: CLP BENEFICIARY

Felix's interest lies in lion conservation, where he has researched predator migratory routes across Pardamat. He is curious to further his study. Jemimah's interest lies in community development in Enkikwei village.

We're proud to support these two future conservation champions in furthering their education and careers as they empower their communities. We believe that engagingly and compellingly exposing children to real-time conservation matters will create positive long-term perceptions of conservation as a whole.



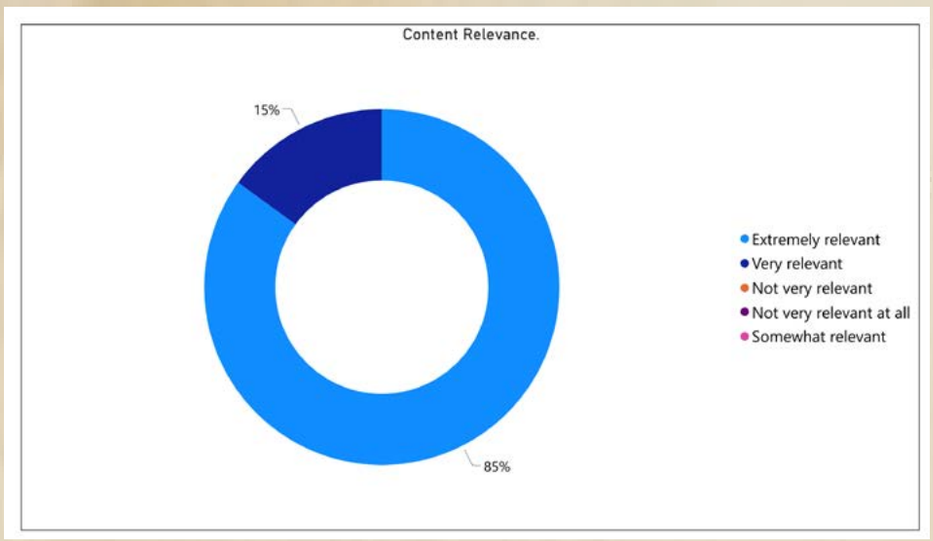
Photo ©2024 Felixie Kip

'Ufugaji Hifadhi' Programme

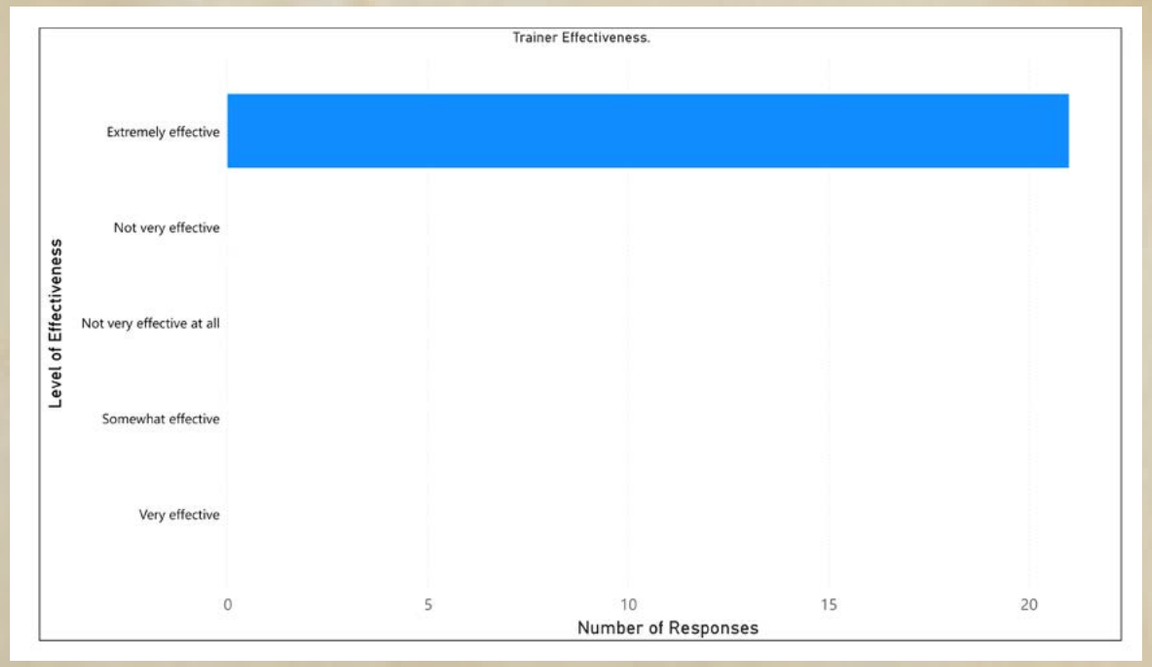
Financial literacy training

Recent statistics reveal that many people worldwide continue to face challenges in managing their finances effectively. In response to this, KWT organized a hands-on financial literacy training aimed at addressing these issues. The event gathered 25 participants (20 women and 5 men), all eager to enhance their financial management skills. Specifically tailored to women and youth, the program focused on equipping them with the knowledge and tools needed to make informed financial decisions and break the cycle of poor financial habits. The ultimate goal was to empower participants to create sustainable income streams and secure better livelihoods for themselves and their families.

Financial literacy is essential for building wealth and avoiding debt, yet many people in the community still lack the necessary knowledge. This training aimed to bridge that gap, and the results were highly encouraging. A remarkable 92% of participants successfully passed a basic financial literacy test, demonstrating the effectiveness of the program. Feedback was overwhelmingly positive, with many participants highlighting the relevance, clarity, and practical application of the content.



The training had a lasting impact, equipping participants with a stronger understanding of financial concepts, enhanced decision-making skills, and a renewed enthusiasm for continued learning. The energy in the room was palpable as attendees realized they now had the tools to make informed financial choices, unlocking new opportunities and paving the way for a more secure and prosperous future.







Participants at the training

Pasture management training

The primary goal of this training was to enhance farmers' understanding of effective pasture management techniques, boost livestock productivity, and promote the health of rangelands. Key focus areas included sustainable pasture management practices, soil and water conservation, rotational and regenerative grazing methods, climate change adaptation strategies, and livestock disease prevention.

These topics aimed to equip farmers with the knowledge and tools needed to improve both their land and livestock management practices.

The training, attended by 180 community members from five Maasai Mara clusters, was structured into three key modules.

Module A introduced the fundamentals of pasture management, emphasizing soil health, biodiversity, and the eco-tourism potential of well-managed rangelands.

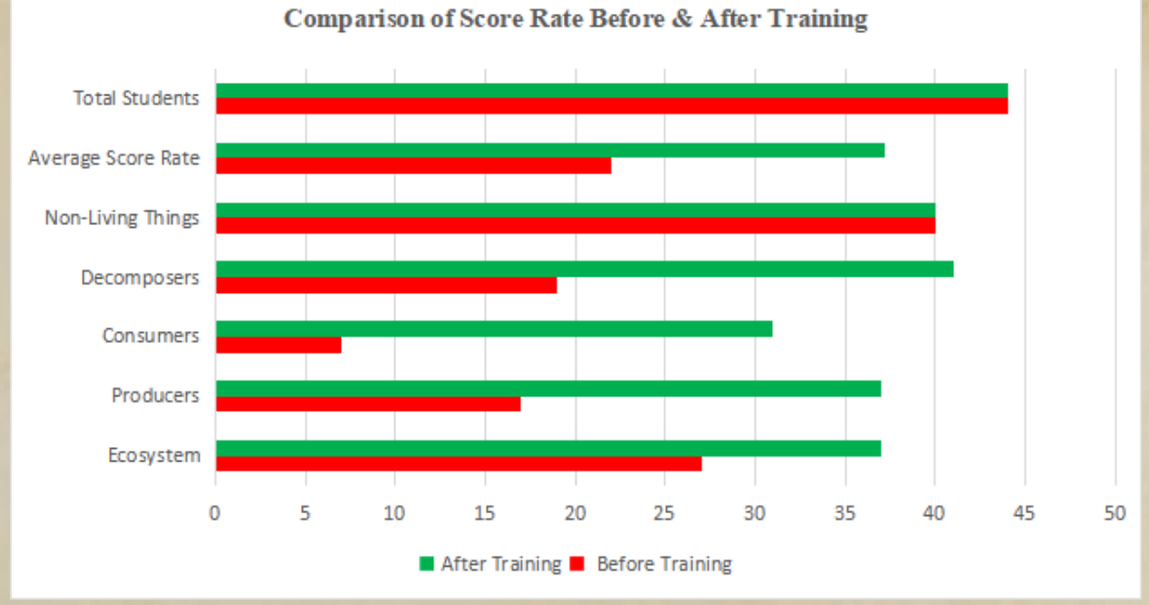
Module B addressed the challenges impacting pasture health, including overgrazing, soil compaction, and the effects of climate change.

Module C focused on grazing and water management, offering practical insights on rotational grazing techniques and strategies for adapting to climate change.

The outcomes of the training were highly impactful. Participants gained a comprehensive understanding of pasture management and developed actionable plans to enhance livestock productivity. The training also facilitated community networking, allowing members to establish a support system for ongoing knowledge sharing.

Additionally, it strengthened drought preparedness, with participants committing to implement strategies such as rotational grazing, supplementary feeding, and sustainable pasture management practices.

Overall, the training effectively empowered the community to improve livestock productivity while ensuring the long-term health of their rangelands.



Comparison score between Before and After Training.

Recommendations

- Continue and potentially expand the current training program, given its demonstrated effectiveness.
- Focus additional attention on areas where some students still struggle, particularly the concepts of consumers and decomposers, where a few of the students persist.
- Implement regular assessments to track long-term retention of these concepts and identify any areas that may need reinforcement.
- Consider incorporating more hands-on or interactive elements in the training to address different learning styles and further improve understanding.
- Develop follow-up materials or activities that students can use to reinforce their learning after the initial training.
- Share successful training methods with other educators or schools to potentially improve ecological education more broadly.





Pasture training facilitation

Workshops and Training

Cowtribe launch in Kenya

Founded in 2017 in Ghana, Cowtribe is a social enterprise focused on improving livestock healthcare across Africa. Through innovative solutions, they deliver vaccine services to thousands of smallholder farmers in rural areas.



Vaccinators administering rabies vaccine

distribution. Cowtribe leaders Dr. Gabriel Turasha and Gillian Koech highlighted their use of the Zoolia Go app for on-demand vaccine access, while government representatives reiterated their commitment to ongoing collaboration.

The event emphasized Cowtribe's goal to scale its impact, improve livestock health, and drive agricultural development through technology.

Following successful operations in Ghana and Côte d'Ivoire, Cowtribe is expanding into Kenya, marking its first venture beyond West Africa. Following a desire for collaboration and partnership, MPCP's team participated in a one-day launch event in Kisumu, bringing together stakeholders from various counties, government agencies, and partners like Bolligheim Ingelheim, KEVEVAPI, and GenePlus Genetics.

Cowtribe demonstrated its efficient vaccine delivery system, addressing healthcare gaps in remote livestock communities. Keynote speakers, including Dr. Matthews Owili, Kisumu's deputy governor, praised Zipline's drone technology for improving vaccine



A drone drops a vaccine package at the event site for a planned vaccination exercise

Regional Conservation and Education Development Training

Smithsonian R and GIS Training

From September 16 to 20, 2024, Kenya Wildlife Trust was honored to have two of their staff, Kasaine Sankan, and Calvin Naurori attend a specialized workshop that took place at the Wildlife Tourism College (WTC) of Maasai Mara, located in the Pardamat Conservation Area (PCA).

This comprehensive training was designed to enhance participants' skills in conducting geospatial work using R, introducing fundamental concepts for wildlife population monitoring, and providing practical experience in analyzing and mapping data from field surveys. The course was structured to blend short, informative lectures with hands-on activities, enabling attendees to learn distance sampling methods effectively. Participants engaged in computer-based tutorials that covered GIS and data analysis in R, making the training both informative and interactive.

Throughout the workshop, participants gained valuable knowledge in a range of key areas. These included understanding the R programming language, troubleshooting R errors, manipulating databases, and importing spatial (GIS) data into R. They also learned essential raster and vector analysis functions and were introduced to fitting basic statistical models. The workshop provided a solid foundation in the theory of distance sampling for population monitoring, equipping participants to analyze data from transect surveys using R. Additionally, attendees learned how to create informative maps and visualize data, including generating maps that depicted predictions based on statistical models.



Participants of the workshop

This training was made possible through the generous support of the Smithsonian Institute, funded by a NASA grant. The workshop was expertly guided by Smithsonian instructors Jared Stabach, Grant Connette, Qiongyu Huang, and Lacey Hughey, whose dedication and expertise significantly enhanced the learning experience. Their leadership and insightful instruction ensured that participants left with a deeper understanding of geospatial analysis and its application to wildlife conservation efforts.

Earth Ranger Workshop



Conservationists at the Earth Ranger Workshop at Kilifi.

Earth Ranger, a sophisticated conservation platform supporting over 550 sites in 75 countries, hosted a four-day workshop in Kilifi with over 100 participants. The event focused on addressing user challenges, facilitating collaboration, and sharing experiences across organizations. Participants received training on new and existing Earth Ranger products to enhance user skills.

The Kenya Wildlife Trust, in collaboration with the Earth Ranger team, presented their work at the workshop. The outcomes of the workshop were highly productive, as the Kenya Wildlife Trust (KWT) was able to address several challenges and issues related to the daily use of Earth Ranger in our conservation activities.

We also had the opportunity to share our conservation efforts with a diverse audience, as we were fortunate to be given a platform at the event. This exposure enabled us to establish key partnerships, including one with Smithsonian University, which focuses on the identification and mitigation of wildlife diseases. These collaborations will significantly enhance our ability to address critical conservation challenges moving forward.



Kasaine Sankan doing a presentation at Earth Ranger Workshop.

Objectives

1. Engage with Earth Ranger users to understand the challenges they encounter and work on solutions to address these issues.
2. Facilitate the sharing of diverse Earth Ranger experiences across different organizations and explore how different organizations can collaborate for sustainable conservation.
3. Provide training on both new and existing Earth Ranger products being introduced.

Conservation Education curriculum workshop

During the month of September, MPCP's Community Outreach Officer joined other stakeholders across the country for a two-day workshop in Nakuru organized by Wildlife Clubs of Kenya. The main objectives of the workshop were to;

- Review and share existing conservation education curricula,
- Identify key thematic areas for the conservation education curriculum,
- Identify areas of synergy and formulation of thematic areas to guide the curriculum development,
- Review the existing conservation education curriculums and put together common ideas that help come up with one comprehensive curriculum that will guide educators in implementing Conservation Education in the country.



Wildlife Clubs of Kenya doing a presentation



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