



JULY-SEPTEMBER
2023

**ENARAU CONSERVANCY QUARTER THREE OF 2023
REPORT**





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Introduction

This report covers the activities and achievements of the Enarau Conservancy during the third quarter of 2023, spanning from July to September. Enarau Conservancy is committed to protecting wildlife and its habitats, restoring degraded areas, and promoting community welfare within its area of operation. This report will give a detailed summary of Enarau’s conservation work, restoration undertakings, research endeavors, and community involvement.

Executive Summary

The third quarter of 2023 at Enarau Conservancy was marked by significant progress in witnessing our conservation, restoration, and research programs. We utilized cutting-edge technologies, such as Earth Ranger, Ecoscope, Terrachart, Wildform, drones, and camera traps, to enhance our efforts in monitoring and safeguarding wildlife.

The management recognized the necessity of providing rangers with intensive 30-day refresher training to reinforce their skills and commitment to safeguarding the environment. They were deployed to the Kooruti ranger mobile station to train there as well as contribute to the restoration of the degraded plain within the conservancy.

The tree nursery has been facing challenges such as herbivory, pest attacks, and unpredictable weather, but it has managed to grow steadily. We are pleased to report that species diversity and seedling quantities are on the rise. The Kipukeri spring rehabilitation project, funded by the Integrated Management of Natural Resources for Resilience in Arid and Semi-Arid Lands (IMARA) program and being implemented by the Maasai Mara Wildlife Conservancies Association (MMWCA), is expected to make the availability of clean water for watering seedlings much smoother.

Enarau's research program partnered with the Centre for Ecosystem Restoration Kenya (CERK) to conduct surveys on soil, vegetation, invertebrates, and large mammals. Students from Jomo Kenyatta University, Mt. Kenya University, and the University of Bologna, Italy were involved in this project. The data collected from these surveys will be used to inform conservation and restoration efforts.

The completion of the first research unit is expected to become a hub for researchers, enhancing collaboration and the sharing of knowledge among enthusiastic conservationists. Enarau Conservancy is fully committed to conserving, restoring, and promoting the well-being of the community. The organization remains dedicated to this important mission through collaborations, research, and the utilization of advanced technology.



1.0 CONSERVATION

1.1 Monitoring

Enarau conservation initiatives are infused with innovation. We harness cutting-edge technologies such as Earth Ranger, Ecoscope, Terrachart, Wildform, Camera traps, and drones, for monitoring, Mapping, and Data visualization.

Earth Ranger: We use Earthranger to monitor rangers and wildlife in real time. Our conservation efforts are enhanced by tracking ranger movements and wildlife sightings to better understand distribution and abundance.

Ecoscope: Our data analysis and visualization tool have transformed raw data into actionable insights. This enables us to make informed decisions to protect our ecosystem effectively.

Terrachart: Terrachart is our conservancy's precision tool it helps us map essential features like streams, roads, and fences through data collection for points, polygons, and polylines.

Wildform: Monitoring wildlife trends is now more comprehensive than ever. This tool acts like a magnifying glass, providing us with critical insights into the health and behaviors of our wildlife.

Camera traps: Enarau Conservancy has introduced camera traps as silent sentinels, capturing invaluable data on our local wildlife. These motion-activated devices discreetly document the behavior and distribution of our fauna, providing crucial insights for our conservation strategies. Camera traps minimize disturbance to the animals, allowing us to observe their natural behavior while aiding in the protection and preservation of Enarau Conservancy's diverse biodiversity.

1.2 Rangers update

The ranger team is working diligently to maintain a secure environment within the conservancy. During this quarter, the rangers conducted multiple foot and motorbike patrols, covering an impressive distance of 3022 kilometers throughout the conservancy. These patrols targeted areas previously identified as hotspots for poaching, illegal logging, and illegal charcoal burning. We are pleased to report that no illegal activities were detected within the conservancy during this quarter.

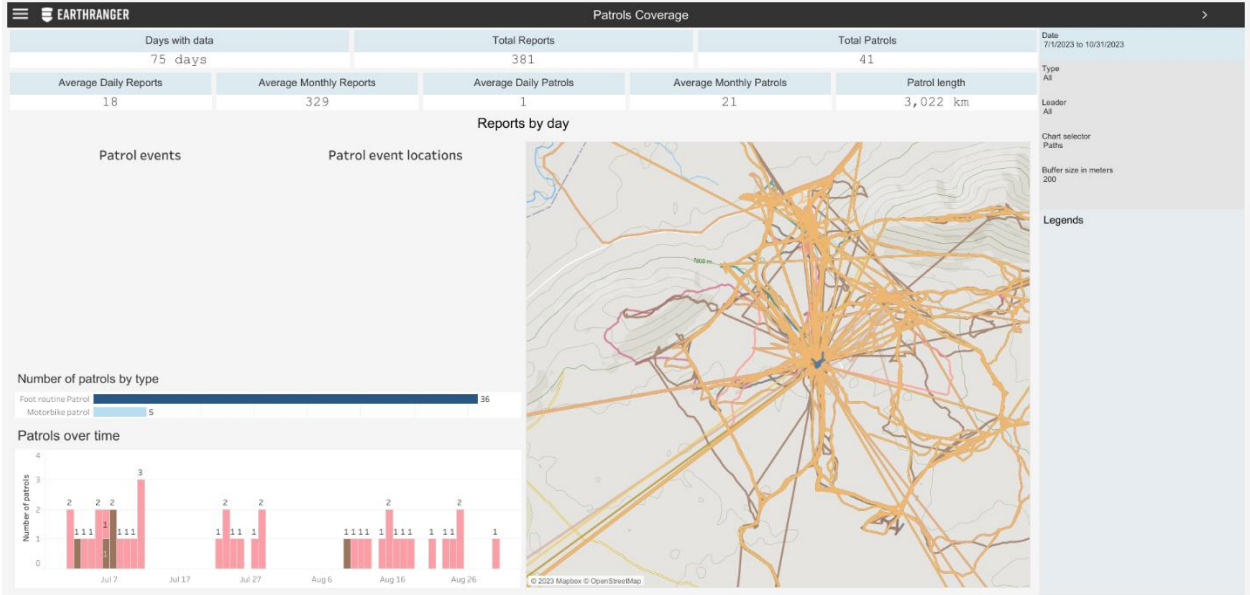


Fig 1: shows the rangers patrolled 3,022 km on foot and by motorbike from July to September.



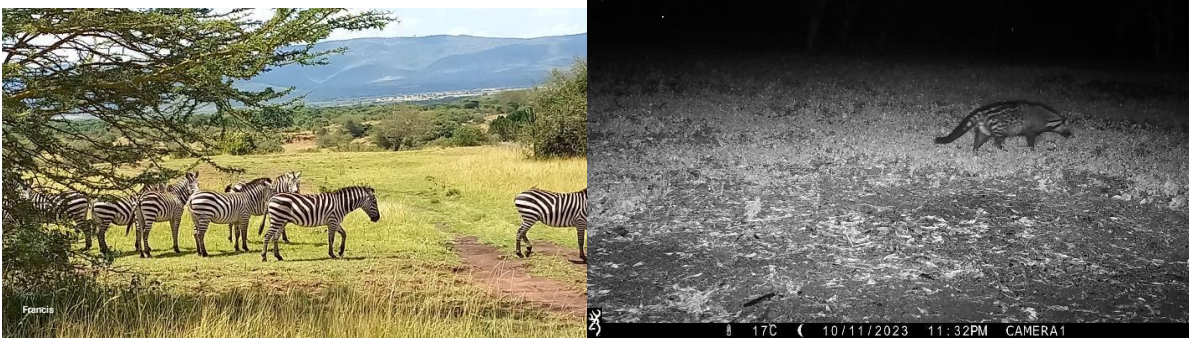
Enarau Conservancy is home to a prestigious habitat, protected by Enarau's rangers. In September, a team of six rangers completed an intensive refresher training program. This training equipped them with advanced skills in surveillance, wildlife management, and survival techniques, making them even more effective guardians of the environment. Following their training, the rangers were deployed to Kooruti station, where they assisted in restoring the Kooruti plain which is the most degraded part of the conservancy.



Pictures 1 and 2: Conservancy rangers in training and at the closing ceremony.

1.3 Wildlife Update

During the reporting period, we have been actively monitoring and protecting the wildlife in the Enarau Conservancy. The camera traps have been instrumental in yielding significant observations, notably, the presence of an African civet. The diversity of wildlife species within the conservancy has been highlighted through camera trap data, with an increase in the populations of zebras, warthogs, and impalas. This is a positive trend indicating that our conservation efforts are having a positive impact. In addition, Matali, the collared elephant visited the conservancy, providing valuable insights into the movements and behaviors of these magnificent creatures. These findings reaffirm our commitment to effective wildlife monitoring and conservation efforts in the region.



Pic 3&4 Zebras and an African Civet, respectively, - Civet captured by a camera trap in the conservancy.

1.4 Water Pan Project supported by Water4Wildlife Maasai Mara

As part of Enarau's ongoing efforts to improve water availability in the Enarau Conservancy and support the wildlife and livestock there, we have collaborated with Water 4 Wildlife Maasai Mara to create a Water Pan project. This project aims to collect rainwater and utilize water from springs within the conservancy to the fullest extent possible.



The Water Pan project plays an essential role in our commitment to maintaining a balanced ecosystem and ensuring the well-being of both wildlife and local livestock. By providing a reliable source of water, this project contributes to the sustenance of native wildlife populations and supports the livelihoods of the local community.

Through this project, we seek to mitigate the challenges posed by water scarcity during dry periods, thus promoting the coexistence of wildlife and livestock in harmony with the conservancy's delicate ecosystem. This initiative exemplifies our dedication to innovative solutions that benefit both the environment and the community.



Pic 5: shows a water pan project implemented to provide water for both livestock and wildlife.



2.0 RESTORATION PROGRAM

2.1 Tree Nursery

Our tree nursery is dedicated to growing indigenous tree species for the restoration of degraded parts of the conservancy. During this dry season, our focus has been on the following tasks:

Preparation of Seed Beds: Ensuring that our seed beds are well-prepared to provide a nurturing environment for seedlings.

Weeding of Seedling Tubes: Keeping the seedling tubes free from unwanted plants to ensure the healthy growth of our indigenous species.

Routine Watering: Providing essential care by ensuring that our seedlings receive adequate water to thrive during the dry season.

Month	Total Tree Species	Total Seedlings
July	16	4,805
August	16	4,676
September	17	4,880

This table highlights the growth in species diversity and the number of thriving seedlings in our tree nursery over the third quarter.

Species Name	Common Name	Number of Species
Tanchonathus camporatus	Leleshwa bush	297
Warbugia ugadensis	African greenheart tree	520
Ximenia americana	Wildplum	120
Rhus natalensis	Red carret	313
Acacia xanthophloea	Fever tree	430
Cordia ovalis	Sandpaper tree	700
Bosia angustifolia	Leopard tree	630
Climber	(Climbing plant)	650
Teclea nobolis	Small fruited teclea	150
Elaeodendron buchani	Elaeodendron	160
Ziziphus mucronata	Buffalo thorn	90
Grewia bicolor	Grewia	120
Scutia mytina	Cat thorn	20
Dombeya torinda	Dombeya	210
Ficus sycomorus	Sycamore	20
Olea africana	African wild olive	200
Pittosporum heterophyllum	-	250
Total seedlings		4,880

This table provides a clear overview of the different tree species, their common names, and the quantity of each species present in your tree nursery, summing up to a total of 4,880 seedlings. It showcases the diversity within the nursery, reflecting your commitment to restoring and preserving the conservancy's ecosystem.

2.2 Kipukeri Spring Rehabilitation

We are happy to report that we have made significant progress with the Kipukeri spring rehabilitation project, as part of our ongoing efforts to maintain a thriving tree nursery. The project is spearheaded by MMWCA through the IMARA program and aims to provide a consistent and clean water supply for the healthy growth of seedlings in our nursery.

Currently, the Kipukeri spring rehabilitation project is underway. This aligns perfectly with one of our goals of producing more seedlings for onsite and external use thus enhancing our restoration efforts within and outside Enarau Conservancy.



Pic 6: displays the Kipukeri spring rehabilitation conducted by MMWCA through the IMARA program, aimed at enhancing the conservancy's tree nursery

2.3 Indigenous tree seeds

Enarau Conservancy received certified indigenous tree seeds donated by MMWCA during the quarter. This has increased species diversity in the tree nursery, with new species such as *Croton megalocarpus*, *Acacia abyssinica*, *Acacia Nilotica* now being grown in the nursery.



Pic 7: captures the Enarau Conservancy Manager receiving indigenous seeds from Maasai Mara Wildlife Conservancies Association.

3.0 RESEARCH PROGRAM

3.1 Research Unit Building

This research-based accommodation will serve as a central hub for researchers, fostering collaboration, and knowledge exchange. It will be a place where like-minded individuals deeply passionate about wildlife conservation can come together, share ideas, and work collectively to address the challenges facing our critical ecosystem..



Pic 8: displays a newly finished research facility intended to provide accommodation for researchers

3.2 Large Mammals Survey

As part of our ongoing conservation efforts, we conduct routine surveys of the large mammal species within the conservancy. During this quarter, we conducted several surveys and documented our observations using the Wild Form platform. This information helps monitor the health and status of these magnificent creatures. While the raw data can be accessed upon request, the ultimate goal is to share the findings through scientific journals and public platforms like Google Scholar and Research Gate, covering various aspects of the research.

3.3 Invertebrates Survey

Working alongside the team from Jomo Kenyatta University, Nottingham Trent University (UK), Bologna University (Italy), and Mount Kenya University we conducted a study focusing on crawling insects in the conservancy's farmland. We utilized the pitfall trap method, involving the excavation of two feet-deep holes and placing containers with water and soap solutions. After several days, we collected the sample insects and preserved them in a container containing sulfuric acid for subsequent laboratory analysis.

3.4 Soil Sample Collection

As part of our efforts to improve soil quality, we collected soil samples from the farmland using steel soil rings, and containers. These samples will undergo laboratory analysis to determine their chemical and biological content, as well as physical properties such as bulk density.



4.0 COMMUNITY WELLBEING

4.1 Grazing management

At Enarau Conservancy, we manage grazing across our four designated grazing blocks. During Q3, we observed that two of these blocks were occupied by livestock. Our Grazing Committee closely oversees these areas to ensure the well-being of both wildlife and livestock, keeping a close eye on sustainable practices and conservation efforts. This collaborative approach is a cornerstone of our commitment to maintaining a balanced ecosystem and supporting the local community.



Fig 2: Shows the cattle grazing in the conservancy rotational grazing blocks, illustrating the practice of rotational grazing.

5.0 CAPACITY BUILDING, MEETINGS, AND VISITS

5.1 Board Members/Landowners Visit to Northern Kenya

During the third quarter, a group of dedicated individuals from our Landowners Committee set out on an exciting adventure to explore Northern Kenya's conservation areas. With the unwavering support of the Maasai Mara Wildlife Conservancies Association (MMWCA), this journey took them to Ol Pejeta Conservancy, Loldaiga, Ngare Ndare, and Samburu National Reserve.

This was not just a trip; it was an opportunity to learn, connect, and grow together. Our Landowners Committee representatives are soaked in invaluable insights into how wildlife, livestock, and communities coexist harmoniously in these unique conservation areas. This educational journey has enriched our conservation approach and ignited new partnerships, emphasizing our commitment to continuous learning and innovative conservation practices.



Pic 10: Mara Conservancies Board Members Benchmarking in the North

5.2 WASH Symposium

Enarau Conservancy had the privilege of being part of something special - the WASH Symposium in Talek, a heartfelt gathering organized by The Maa Trust and made possible with the support of The Aqua Nirvana Foundation. This event brought together NGOs, government entities, and local conservation programs to delve into the world of water, sanitation, and hygiene (WASH) initiatives in our region.

What made it truly remarkable were the people - passionate individuals from various backgrounds, each with a shared commitment to making our region better. The stories, the insights, and the camaraderie were nothing short of inspiring.



Pic 11: Government, NGOs, and conservancy teams after a WASH (Water, Sanitation & Health) symposium.

5.3 Smithsonian Team's Visit

Enarau Conservancy was delighted to host a team from the Smithsonian Institution who expressed a keen interest in our geographical location, biodiversity, and our future plans. Their visit was driven by the possibility of collaboration under the NASA Grant, which specifically targets wildlife monitoring within our conservancy.

During their visit, we engaged in informative discussions, sharing our insights and aspirations. It was an opportunity to align our efforts and explore how our collective expertise can contribute to the success of this crucial wildlife monitoring project. The visit further solidified our commitment to conserving and protecting our unique biodiversity, with the potential for valuable collaboration on the horizon.



Pic 13: Smithsonian team Visit Enarau Conservancy for Informative Discussions and Collaborative Aspirations

5.4 Wildlife Tourism College Students Explore Conservation Strategies at Enarau

In late September, students from the Wildlife Tourism College of Maasai Mara embarked on an educational conservation trip to Enarau Conservation Area. This excursion aimed to provide aspiring wildlife and tourism professionals with valuable insights into environmental conservation, habitat management, and the use of technology for conservation efforts. During their visit, students

witnessed diverse strategies for preserving the environment, including combating degradation, protecting wildlife, and restoring degraded lands. They also gained an understanding of technology's role in monitoring biodiversity, soil health, and hydrological cycles.



Pic 13: WTC Students' Educational Trip to Enarau



6.0 CHALLENGES FACED DURING Q3 2023

Despite our unwavering commitment to conservation, Enarau Conservancy still encountered significant challenges during the third quarter of 2023

6.1 Bush Meat Hunting

Regrettably, two zebras fell victim to illegal bush meat hunting by members of the local community. This incident underscores the persistent challenge of wildlife poaching within and around the conservancy. Such activities not only pose a direct threat to our precious wildlife but also undermine our extensive conservation efforts. Immediate action is needed to strengthen anti-poaching measures, raise awareness, and engage with the local community to discourage illegal hunting.

6.2 Illegal Grazing

The issue of unauthorized livestock grazing within the conservancy persists, despite our continued efforts to address it. Illegally grazed livestock not only trample fragile ecosystems but also compete with native wildlife for limited resources, such as forage and water. This activity has the potential to degrade the habitat, disrupt natural processes, and threaten the conservancy's delicate balance. It is imperative to intensify community education, enhance monitoring, and implement stricter enforcement measures to mitigate the impacts of illegal grazing.

6.3 Human-Wildlife Conflict

These challenges underscore the importance of ongoing community engagement, education, and the enforcement of conservancy regulations. Enarau Conservancy remains steadfast in its commitment to working closely with all stakeholders to find sustainable solutions that preserve our natural In a tragic incident in the potential wildlife corridor leased for conservation efforts in Emaro Village, a problematic elephant was eliminated due to its frequent encroachments into human-inhabited areas, resulting in crop damage and, most regrettably, the fatal injury of a school-going child. This incident underscores the pressing challenge of human-wildlife conflict in the region and has generated negative sentiments within the community. Immediate actions were taken by local authorities and wildlife conservation organizations to address the threat posed by the elephant. However, it has also highlighted the need for enhanced monitoring, community engagement, non-lethal conflict mitigation measures, and swift response protocols to prevent such tragedies and foster harmonious coexistence between humans and wildlife in the future. Heritage and ensure the long-term health and protection of our unique ecosystem.

6.4 Recommendations

- **Enhanced Monitoring:** Strengthen monitoring of wildlife movements, especially in areas near potential wildlife corridors, to identify problematic individuals early.
- **Community Engagement:** Initiate community sensitization programs to foster understanding and cooperation between residents and conservation organizations. Educate the community on the importance of wildlife conservation and the potential benefits of coexistence.
- **Conflict Mitigation Measures:** Implement non-lethal measures to deter wildlife from entering human settlements, such as the installation of elephant deterrent fences, early warning systems, and designated wildlife corridors.
- **Swift Response:** Develop rapid response teams equipped to handle human-wildlife conflict situations, with a focus on minimizing the risk to human lives.



Pic 13: Elephant Eliminated Due to School Child Fatality



Conclusion

The Enarau Conservancy made significant progress in conservation, restoration, and research during the third quarter of 2023. The use of advanced technologies such as Earth Ranger, Ecoscope, Terrachart, Wildform, drones, and camera traps improved our wildlife monitoring and protection efforts. The refresher training program provided to our rangers enhanced their skills and dedication to safeguarding our environment. Despite facing challenges such as herbivory, pest attacks, and unpredictable weather conditions, our tree nursery steadily increased species diversity and seedling quantities. The Kipukeri spring rehabilitation project is progressing well and will facilitate seedling propagation, furthering our restoration goals. Collaborative research programs with Jomo Kenyatta University provided valuable data for informed conservation decisions and ongoing restoration activities. The construction of a research unit building will serve as a hub for knowledge exchange and collaboration among passionate conservationists. Enarau Conservancy remains committed to conservation, restoration, and community well-being despite challenges such as bushmeat hunting and illegal grazing. We're dedicated to preserving our natural environment using innovation, collaboration, and a deep commitment.