MEP March 2023 Report

In 2017, a young girl named Sheema was critically injured by a rouge elephant. MEP's community rangers responded immediately and using the helicopter we were able to get her to the hospital where she received treatment and made a full recovery. MEP has stayed in touch and provided for her school fees yearly. Now, Sheema is 12 years old and attending Kishermoruak Primary School. She recently sent a photograph with her school supplies and uniform; all provide for by MEP.

GENERAL

The seven new MEP recruits from Mosiro have arrived at headquarters to begin their six-week basic tactical introduction training course. Over the last decade, MEP has developed core packages for the basic requirements of a ranger in our ecosystem which include Standard Operating Procedures, Patrol Medic, Fitness, Navigation, Communications, Data Recording, Asset Use, Laws and Wildlife Act, Drill and Discipline, and Field Crafts. MEP has opened our training to strategic partners in the ecosystem to provide bespoke training to enhance safe and effective deployment of rangers.

SECURITY, ANTI-POACHING & CONFLICT

Kenya Wildlife Service (KWS) arrested a total of five suspects and confiscated 21.7 kg of ivory in three separate busts in March all based on MEP intelligence.

The Mara Elephant Project "Charlie" and "Alpha" Sheldrick Wildlife Trust (SWT) Mau De-Snaring Units were busy in March efforts in the Mau Forest alongside KWS continuing their protection and Kenya Forest Service (KFS).

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As their name suggests, the MEP mobile ranger team is constantly adapting to rapidly respond to any area of the Mara in need of more protection. In late March, they assisted our partners KWS Vet Dr. Ndambiri with the SWT Mara Mobile Vet Unit with two elephant treatments. The elephants had spear and arrow wounds on their legs, a common injury found on elephants that venture into community land bordering the protected conservancies.

In March, the MEP "Golf" ranger team partnered with rangers from the KWS, Narok County and the Anne K. Taylor Fund alongside the vet, Dr. Asuka from the Mara Triangle, to treat a zebra who had a snare injury. Wildlife snares are long strips of usually wire used to trap wildlife for bushmeat. As was the case with this zebra, even if the animal manages to evade the trap, the wire can continue to dig into its flesh once they're ensnared. The zebra was treated and sent along the way to hopefully make a full recovery.

The MEP "Echo" ranger team is stationed in the Loita Forest to increase protection for the forest and the wildlife that call it home. During the last week of March, alongside KWS and KFS, they successfully arrested four suspects cutting down red cedar and olive trees for timber. During the bust, they confiscated a power saw, recorded the serial number and turned it over to police.

In total during the month of March, MEP rangers alongside government partners arrested 25 habitat destruction suspects, confiscated two power saws, 306 pieces of timber, 8 posts, 17 bags of charcoal and destroyed 22 kilns. They also removed 1 snare and mitigated a total of 12 conflict incidents. In March, MEP rangers covered a distance of 2,037.19 km on foot and 16,597.44 km by patrol vehicle in the GME, and 38.21 km on foot in Marmanet.

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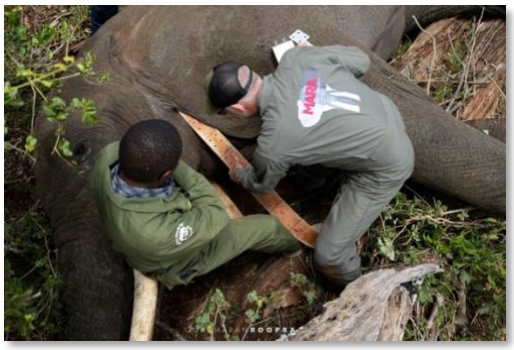
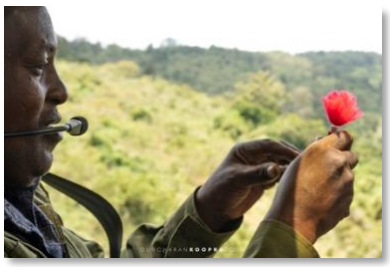
HELICOPTER

We wanted to update you on an elephant collaring that took place in February but was left unmentioned in the monthly report. On February 18, alongside KWS Vet Dr. Ephantus Ndambiri, MEP successfully collared a female elephant using the helicopter in the Shompole/Mosiro area. The new female was with her herd of 15 elephants and will be monitored in real time to increase her protection and collect important movement data to inform the deployment of resources and land use planning. Wildlife photographer Rohan Shah was there to capture it.



On March 17, MEP pulled together a large airborne operation to collar a bull elephant named "Isiah" in the Loita Forest. Tracking Isiah's movements will allow KWS, WRTI and MEP to increase protection for the forest and better understand the connectivity between the forest and other important elephant habitats. We are grateful to the Royal African Foundation supporters for making the protection of this bull for three years possible. He's named after a beloved employee gone too soon. Read more here. We were grateful to be joined by wildlife photographer Gurcharan Roopra to capture the collaring operation.



WRTI, KWS and MEP not only collar elephants important to understanding movement patterns, but also in response to conflict. In March, KWS requested MEP collar a rogue bull elephant who was breaking out of the electric fence surrounding the Shimba Hills National Reserve and going into bordering farms on a daily basis. On March 3, MEP successfully collared the bull alongside KWS Vet Dr. Rono using the MEP helicopter to better react to conflict. We also established a geo-fence (a virtual fence barrier) around the Reserve boundary so that the rangers on the ground will be able to react in real time when the bull breaks the

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fence to push him back into the park. The rangers will also be able to see from the mobile app when he starts staging behavior near the fence and intervene before he breaks it.

On March 28, KWS, WRTI and MEP re-collared bull elephant "Lolotoo". His movements around the Marmanet Forest bring him into contact with communities. After being collared, Lolotoo moved inside the forest and remains with his herd of 20. This herd make regular visits to the Kiribot / Waseges River and then back to the forest. The KWS and MEP scouts are using Lolotoo's movement data to respond and prevent conflict between his herd and the community.

COMMUNICATIONS & FUNDRAISING

In March, MEP celebrated World Wildlife Day, International Women's Day and the International Day of Forests and highlighted our amazing staff's diversity and protection efforts to better our planet.

In March, the Sidekick Foundation, Inc. d/b/a Mara Elephant Project USA received $142,978.62 in donations to support MEP and Mara Elephant Project Trust received $9,874 donations in March. We want to thank the Leslie A Alexander Foundation for their continued loyal support of MEP. Thank you to Ginni Keith, Curtis Collins, the Gopinathan-Mukutmoni Charitable Gift Fund, Arthur Choate, Rita Cone, Sarah Delaney, Louise Donovan, Deborah Fagas, Patricia Fitzgerald, Beverly Kato, James King, Priscilla Martin, Allan Montgomery, Betty Nagle, Jean Nunes, Kenneth Parks, Caryl Rine, Stephen Strunk, Cindy Taylor-Lisenby, Lois Vaughan and Mary Vero for supporting MEP in March.

There were 10 stunning entries in The Greatest Maasai Mara photo competition in March that supported MEP. Thank you to all of the photographers for your support. *Left: A March entry by Julie Grohs.*

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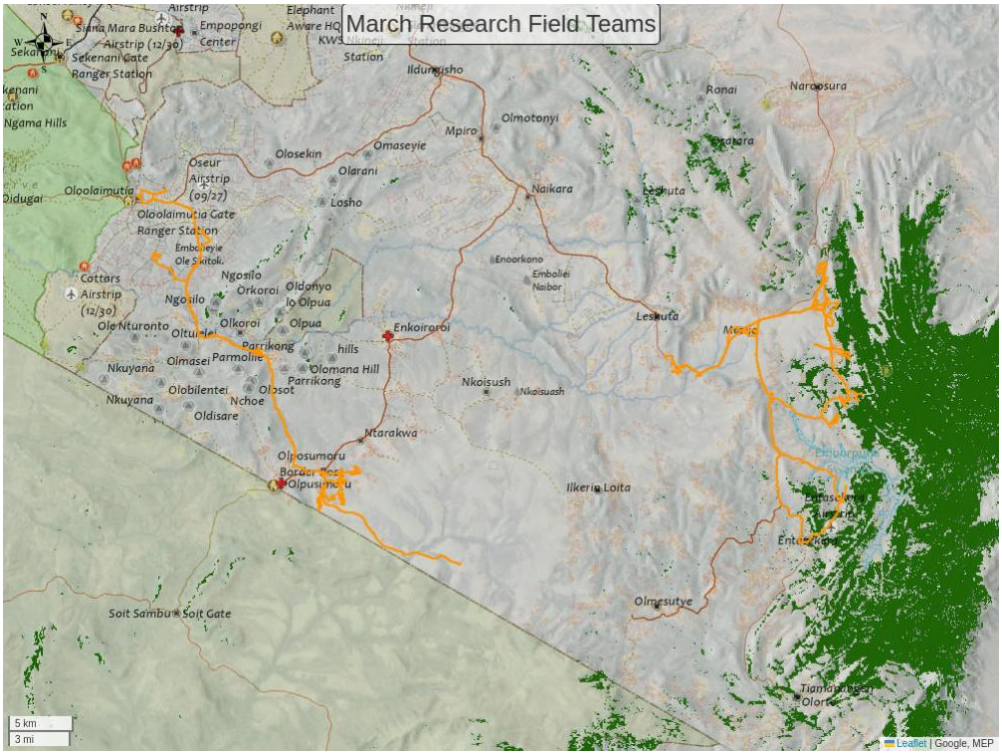
RESEARCH & CONSERVATION

Director's Update

In early March, I joined Jes Lefcourt (Director of EarthRanger), Jonathan Palmer (WCS), Eric Schmist (WPS) to meet with Walter Sedgewick and tour Lewa and NRT conservancies to understand their use of the EarthRanger system as supported by 51 Degrees. We had great discussions around the future of conservation data analytics. The latter part of March I took my annual leave, but the research department continued working on mapping roads and fences for our Landscape Dynamics database. We also finalized production of a map of the Greater Mara Ecosystem that is now being printed. The long-term monitoring team continued their identification efforts in the Mara Triangle, and Lemek and Mara North conservancies.

When it rains, it pours. On March 14, SWT requested assistance from MEP to treat an elephant with three wounds in need of immediate attention. The MEP long-term monitoring (LTM) team joined the SWT Mobile Vet Unit and KWS Vet Dr. Mukami in the Maasai Mara National Reserve for the operation and it was pouring rain throughout the treatment adding a level of difficulty. The female elephant, identified by MEP as individual 918, had three arrow wounds from human-elephant conflict and the team got to work on treating her. Soon, she was back on her feet and on her way to healing and the team was heading back to HQ to dry off.

Eric Gitonga's work on Ecoscope progressed in March and we are close to finalizing a module to make uploading data into EarthRanger more straight-forward.



Movements (orange tracks) of MEP's two field assistants during March. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our TerraChart app. They recorded 21.5 km of fences and 0 LCC points in March.

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MEP Co-Existence Farm

General Update

The month was characterized with high level of continuous rainfall. We introduced five new crops (aloe vera, moringa, thyme, French lavender and yams) that replaced five other crops (beans, peas, coriander, potatoes and carrots) that have been predated and re-planted over five times. We also planted 60 trees of avocado along the farm, it is believed to have a low predation level by elephants, and we look forward to testing that. The high rainfall meant plenty of grass in the surrounding areas therefore we saw a low level of predation compared to other months.

Aloe Vera, French lavender and thyme a few of the new crops introduced to the farm.

Plots of eggplant, capsicum and tea tree flooded due to heavy rain.

Lemon grass and tea tree after a hippo passed by and browsed.

The Co-Existence farm team had an opportunity to attend a soap training activity organized by The Maa Trust's community youth enterprise. The Farm workers did not only learn how to make organic, medicinal soap, but also the firsthand use and importance of essential oil crops, which at this stage have a low predation rate at the farm.

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Experimental Farm SITREP: *March 2023*

Date Time	Plot Id	Type of Crop	Details
2023_03_04	1-2.1	Lemon Grass	Replanted after hippos vandalized the plot up to below 25%
2023_03_04	1-4.1 5-1.1 6-6.1 10-8.1 11-13.1	Sweet Potato	Replanted for the fifth time after predation by both elephants and hippos
2023_03_10	1-5.1 4-11.1 7-3.1 8-7.1 10-11.1	Chili	Replanted for the second time, chili has c been harvested for a whole year till it dried up, the crop with the highest yield
2023_03_10	1-9.2 4-6.2 5-2.2 9-10.2 11-3.2	Aloe Vera	Planted for the first time, replacing a crop that has been predated more than five times
2023_03_10	2-4.2 3-9.2 4-7.2 6-13.2 10-6.2	French Lavender	Planted for the first time, it is supposed to replace English lavender that has not flowered for the past two years
2023_03_10	2-10.2 6-14.2 7-9.2 8-4.2 10-2.2	Thyme	Planted for the first time, replacing a crop that has been predated more than five times
2023_03_10	2-12.2 5-5.1 7-14.2 8-2.1	Goose Berry	Replanted for the fourth time after it was predated by hippos
2023_03_10	3-5.1 5-8.1 6-15.1 8-11.1 11-14.1	Cabbage	Cabbage was predated by hippos, they are being replanted for the fourth time
2023_03_10	8-16.1 9-11.1	Spinach	Spinach have been replanted after it was eaten by hippos and elephants
2023_03_10	10-4.1	Onion	It was replanted after a whole plot was vandalized by elephants
2023_03_14	2-2.1	Spinach	Hippos eat and stepped on the plot
2023_03_14	2-6.2	Geranium	Stepped by hippos and a few broken

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	10-10.1	Geranium	
2023_03_14	3-6.1	Lemon Grass	Hippos have severely predated on this plot
2023_03_14	10-5.2	Eggplant	Hippos fed on some of the leaves of the eggplant, leaving stalks
2023_03_17	2-8.2 6-3.2 7-12.2 9-6.2 9-13.2	Yams	Planted for the first time, replacing a crop that has been predated more than five times
2023_03_17	2-9.1 4-1.1 4-5.1 8-12.1 11-8.1	Ginger	Replanted for the fourth time, it has poor germination therefore most of them did not grow to maturity
2023_03_20	1-3.1 3-11.1 7-1.1 9-4.1 11-9.1	Sukuma	Replanted for the fifth round, most were eaten by monkeys and destroyed by hailstones during a heavy rainfall.
2023_03_24	3-3.1	Tea tree	Hippos passed through the plot no predation but some trees branches found on the ground

Climate Report

Table 2: 1 MEP's Experimental Farm Rainfall Recording March 2023

Date Time	Precipitation (ml)	Precipitation (ml)
	Rain gauge 1	Rain gauge 2 (200m^2)
2023_03_04	16	12
2023_03_07	3.2	20
2023_03_10	26	23
2023_03_11	10	7.5
2023_03_13	20	16
2023_03_14	2	0.8
2023_03_21	9	5
2023_03_23	48	26.3
2023_03_25	22	16
2023_03_26	3.2	2
2023_03_27	17	12
2023_03_28	23	18
2023_03_29	45	28
2023_03_31	12	8.6

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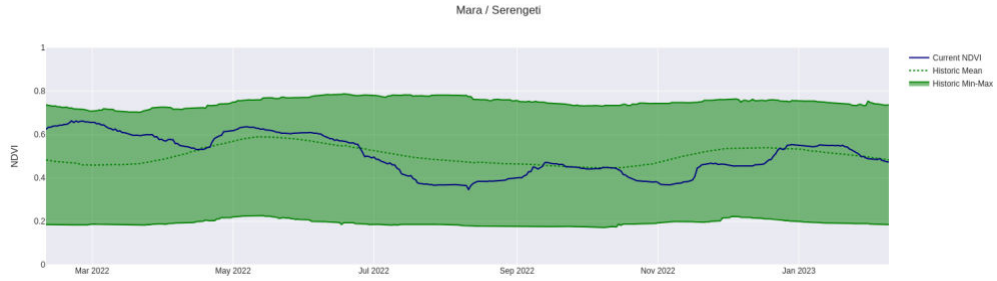
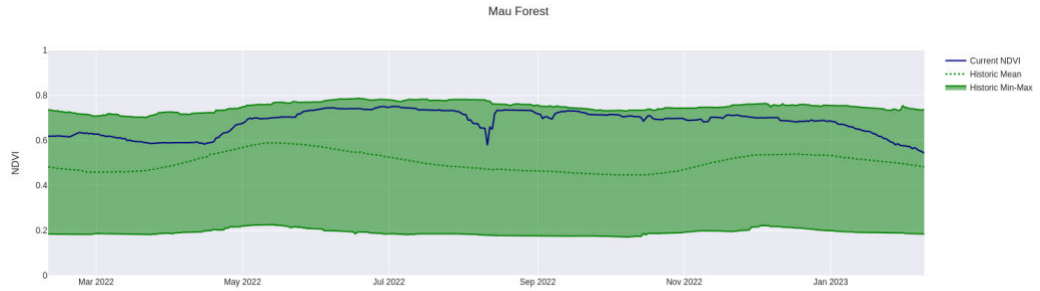
ENVIRONMENT: NDVI

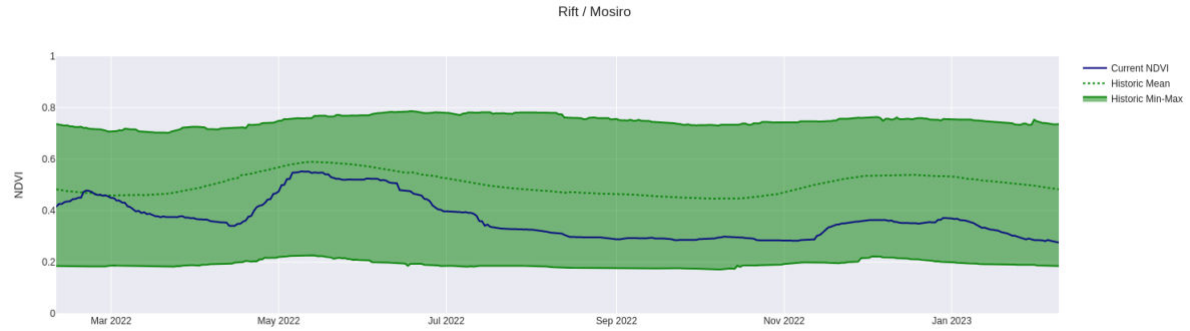
Normalized Difference Vegetation Index (NDVI) is a measure of plant photosynthetic activity. Higher NDVI indicates the plant is greener. The blue trend line shows the current value while the green shaded area shows the min-max range of values centered around the green trend line from values measured back to February 2000.



Greater Mara Ecosystem (GME)



Mau Forest



Rift Valley / Mosiro

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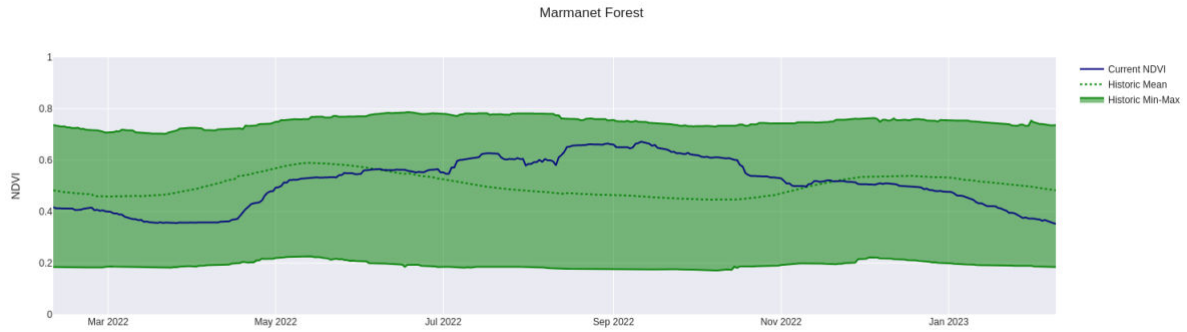
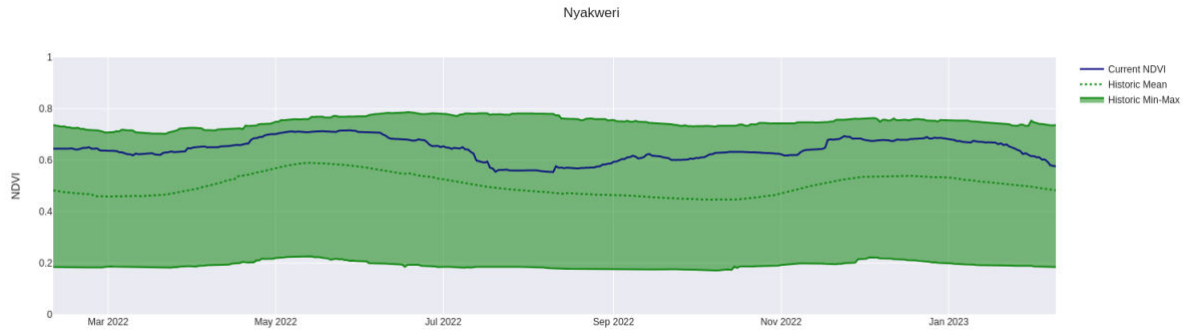


Marmanet Forest



Nyakweri Forest

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