MEP June 2021 Report

Most of the Mara based MEP staff received their second dose of the Astra Zeneca vaccination on June 28. It's a relief to know that everyone is protected against the virus.

GENERAL

On June 16, there was an elephant treatment that truly highlighted the team effort our organization can now put into protecting the wildlife, communities and habitat of the Maasai Mara. The elephant treatment, while routine, highlighted our rangers, long-term monitoring (LTM) team, helicopter and brought everyone together to work alongside our partners to save this elephant. We originally received the call from Oloisukut rangers that they spotted a bull elephant with an injury on his front right leg. MEP then deployed the "Alpha" team stationed in Nyakweri to find the elephant and document his wounds so Kenya Wildlife Service (KWS) Vet Dr. Limo could be called. Once on the ground, they noted that he was limping and moving very slowly as he was crossing the Mara River. The MEP leased helicopter was sent to retrieve Dr. Limo, herded the elephant out of a patch of forest and assisted with darting the elephant from the air so he could be treated. Once down, Dr. Limo alongside his Sheldrick Wildlife Trust (SWT) Mara Mobile Vet Unit team members got to work and removed two arrow heads and treated one spear wound on the elephant.

The MEP long-term monitoring (LTM) team were on the ground to assist with the treatment alongside the Alpha ranger team. They noted that this bull elephant was identified as elephant ID 58 and was officially identified on April 22 and then photographed again on May 13 where one of his wounds was noted. This bull had clearly been in conflict with the nearby community bordering the conservancy and was shot with arrows while raiding farms. The treatment was successful and all of the elephant's wounds were cleaned out, disinfected and patched up; it was truly a team effort.

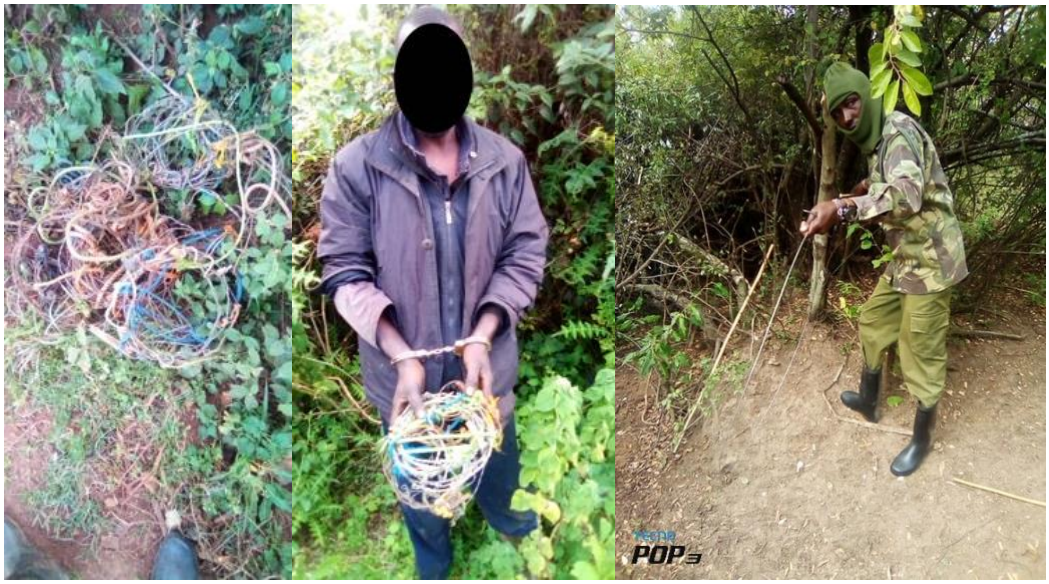
On June 13, MEP Trustees Kevin Rodrigues, Trey Fehsenfeld and Beatrice Karanja joined other core staff members (*pictured below*) on MEP's campus to meet in person and receive recent updates on MEP's ranger operations and research. It was exciting as almost the whole core team was able to gather for the first time since the pandemic in the Maasai Mara.

SECURITY, ANTI-POACHING & CONFLICT

Crops are ripe in the Maasai Mara, and MEP rangers were busy the first week of June responding to conflict in our areas of operation. On June 1, there was maize damage reported to MEP in the Transmara area. That same day, the MEP "Alpha" ranger unit was meeting with farmers in the Enkutoto area, who had hungry elephants crossing the Mara River and raiding their maize. The

team was sent to investigate crop damage from the night before and speak with the farmers to calm rising tensions between elephants and the community. Then, the next day on June 2, both MEP mobile teams in different areas responded to conflict. One team while patrolling the Noobokishi area found a group of elephants that had knocked down a fence to crop raid earlier that morning. That night, a fourth MEP ranger unit chased away a herd of 20 elephants using the cover of night to crop raid maize farms (*pictured below*).

Both SWT Mau De-Snaring Units have been busy removing snares and shutting down any illegal logging or charcoal operations inside the forest. On June 3, they removed 30 snares inside the Mau Forest and discovered a cave where bushmeat poachers had killed a bushbuck. Then, on June 23, the team removed 13 active snares while on patrol and a few days later, on June 25, the team stationed in the Kericho area of the Mau Forest arrested four suspects for illegal logging and charcoal production. The same team removed 10 active snares a few days later on June 28 (*pictured below*). In total, in June there were two bushmeat poaching suspects arrested alongside government partners and 92 snares removed and 10 kg of bushmeat recovered.



In June, MEP rangers were also busy with shutting down illegal charcoal operations by confiscating charcoal sacks, destroying kilns and arresting suspects alongside our government partners (*pictured below*). In total, in June, 21 habitat destruction suspects were arrested alongside government partners, two power saws recovered, 12 kilns and 33 bags of charcoal destroyed and 461 posts and six timbers recovered.

In June, MEP rangers covered a distance of 1,656.9 km on foot, 10,299 km by car and 4,265 km on motorbike.

HELICOPTER

On the 16th of this month, we deployed the helicopter to get Dr. Limo to an elephant in need of treatment. The large bull elephant had several conflict related injuries and Dr. Limo pulled out two arrow heads from active wounds. We are happy to report that he will make a full recovery.

As part of pilot proficiency this month we undertook training and line checks for both pilots that fly for MEP. Riz and Marc spent 3 days flying and attending classroom sessions in Nairobi for this.

On the 29th we did a patrol of the Mau Forest and relayed coordinates to the ground teams of commercial logging and charcoal making (*pictured below*).

COMMUNICATIONS & FUNDRAISING

Mara Elephant Project kicked off June by celebrating Madaraka Day in Kenya. MEP has over 70 Kenyan team members that celebrated in the Maasai Mara and Nairobi. Later that week, we celebrated World Environment Day and Diamond Trust Bank posted about MEP's work to show their support, thank you. The MEP LTM team participated in a trash clean up around a nearby community on World Environment Day (*pictured below*).

We also participated in the inaugural World Female Ranger Day and highlighted MEP's four female rangers: Caren, Fancy, Gloria and Purity. Governor's Camp Collection posted about our female rangers as well in support, thank you. Angama Foundation and MEP posted a blog featuring collared elephant Fitz and the important work being done to protect him, his herd and their habitat. Photojournalist David Chancellor included MEP in his recent National Geographic piece and MEP was mentioned in a China Daily article in June.

We still actively have three people celebrating a birthday by raising money for MEP on Facebook. Thank you to Rick, Shaundra and Kajal for supporting us in June with a total of $2,396.46 in donations received from Facebook.

MEP has been receiving amazing donations from supporters through our Amazon Wish List. In June alone, we received boots, socks, LifeStraws and backpacks for rangers and a medical kit for a ranger team. We also received four books for the research department. Each item essential to ranger's success while protecting elephants. Thank you to all of the donors who have given through this list.

We hosted kids from a nearby school program on campus who joined Wilson to learn more about MEP and conservation issues in the area.

MEP had 19 entries in the Greatest Maasai Mara photo competition. Thank you to Luca Bredt, Gurcharan Roopra, Minal Peshavaria, Dhir Jakharia, Samuel Vasell, Laura Harley, Camilo Serrano, Miller Harrison, Thorsten Hanewald, Kathy Karn, Prakash Sujir, Mark Boyd, Jose Fragozo, Anne Garcia, Felix Rome, Clair Nicol and Tracy Miller for supporting us. *Pictured left: a finalist in June by photographer Jose Fragozo.*

MEP Kenya Trust received a total of $1,709.59 in donations in June. MEP received $167,619.78 in donations via the Sidekick Foundation, Inc. in June. This includes a $60,520.77 donation from Lori Price for MEP's Shimba Hills project, and a $25,000 donation from loyal supporters the Leslie Alexander Foundation as well as a $10,000 from Mary Love, a multi-year gift. In addition, $5,000 from Maxine Beige and donations from the Glynis Burgdorff Family Charitable Fund, Steven &

Herma Brenneis, which were generously given our information from Angama Mara, and Virginia Hardy. Thank you to Meredith Garrett for supporting the salary of one of our female rangers for one year. Additional thanks to Deborah Lichliter, Carolyn Sunny Shine, Deborah Fagas, Joan Balitch, Carmen Cappadona, Kathleen Hamilton, Margaret Hennell, Richard Honeyager, Elizabeth Hyatt, Richard Litkenhaus, Marcy Mackinnon, Kenneth Parks, Steven Petak, Nancy Schmitt, Margaretta Taylor, William Van Buren and Joseph Davison for their donations as well.

RESEARCH & CONSERVATION

Director's Update

At the start of June, we hosted George Wittemyer and Iain Douglas-Hamilton for a few days at MEP. We had some great meetings, and it was really good to demo and get feedback on our ElephantBook system and the new Long-Term Monitoring field team.

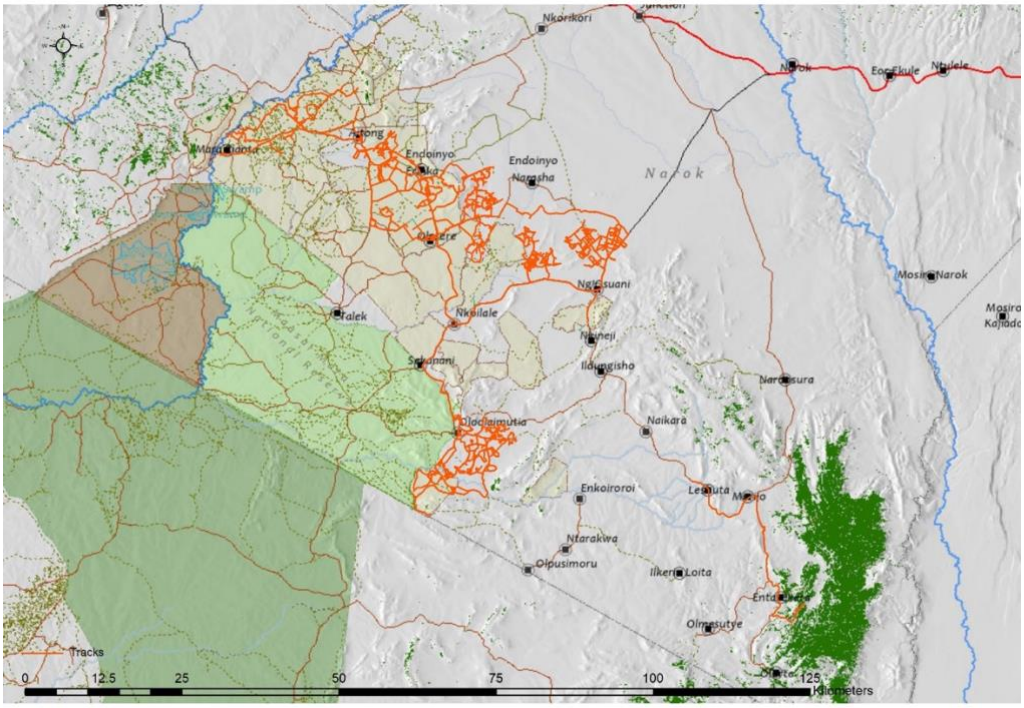
Our paper on the ElephantBook system has now been published as part of the ACM Compass Conference Proceedings (https://arxiv.org/pdf/2106.15083.pdf). Our LTM team is making great progress using the platform and has identified 225 individuals across 350 recorded sightings that started in February.

My paper on Pan-African elephant range was recently featured in Mongabay online and Natural History magazine and was also reviewed as part of Dispatch published in Current Biology by Peter Leimgruber (available at: https://www.sciencedirect.com/science/article/pii/S0960982221005728).

Our fence mapping team continues to chart the expansion of fences across the Mara and they added another 298 kms of fences to our Landscape Dynamics database. MEP has now mapped nearly 4,000 km of fencing across the Mara.

Year	Month	Electric	Other	Wire	De-fenced	Total (kms)
2019	November	48.27	-	18.35		66.62
2019	December	81	-	59		140
2020	January	111.16	4.64	124.71		240.51
2020	February	101.62	1.17	33.99		136.78
2020	March	48.59	0.14	59.76		108.49
2020	April	19.78	0	10.38		30.16
2020	May	24.75	1.88	41.18		67.81
2020	June	15.19	1.48	107.88		124.55
2020	July	37	-	52.76		89.76
2020	August	60.12	7.52	40.08		107.72
2020	September	126.95	7.15	221.44	15.18	370.72
2020	October	109.05	10.57	218.99	1.78	340.39
2020	November	101.2	24.52	153.12	13.88	292.72
2020	December	62.99	9	190		261.99
2021	January	87.9	19.4	121.09	5.2	233.59
2021	February	79.2	22.9	175	-	277.1
2021	March	20.3	7.4	147.92	8.6	184.22
2021	April	80.2	31.05	96.4	2.3	209.95
2021	May	40.3	23.6	296.5		360.4

2021	June	37	44.8	214.2	2.7	298.7
	Total (kms)	**1,292.57**	**217.32**	**2,382.75**	**49.64**	**3,942.18**



Movements (orange tracks) of MEP's three field assistants during June. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our Njia app. They recorded 298.7 km of fences and 96 LCC points in June.

Tracking Manager's Update

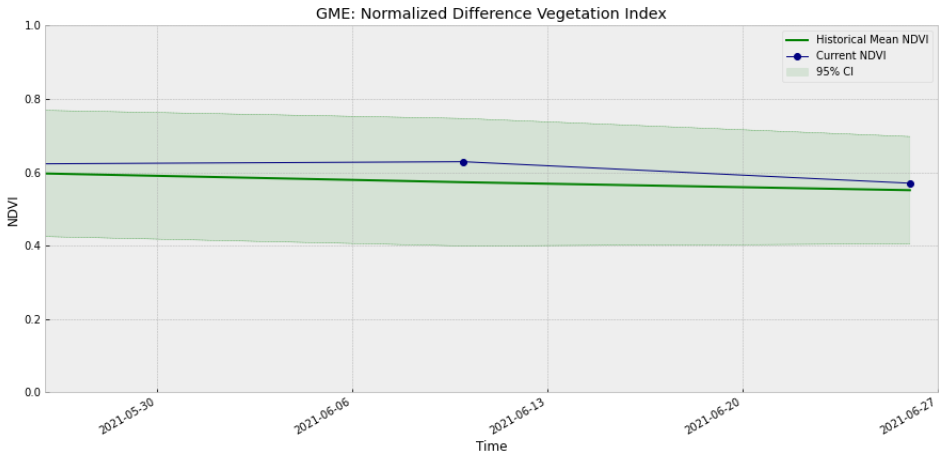
Left: The MEP LTM team was monitored Fred on June 17 after his collar was showing that he was moving at a low speed. When they arrived, they found him in good health and just slowly browsing along the Mara River. Right: The MEP LTM team member Vincent monitored collared elephant Kegol on June 13 and found him alongside a previously identified individual Flopsy. They were both in Mara North Conservancy (MNC) and appeared in good health.

Ivy was spotted by MEP rangers with her herd in early June.

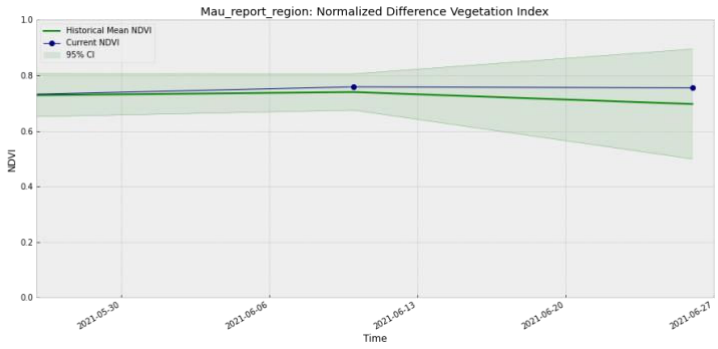
ENVIRONMENT: NDVI

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 area shows the 95% distribution of values centered around the green trend line from values measured back to February 2000.

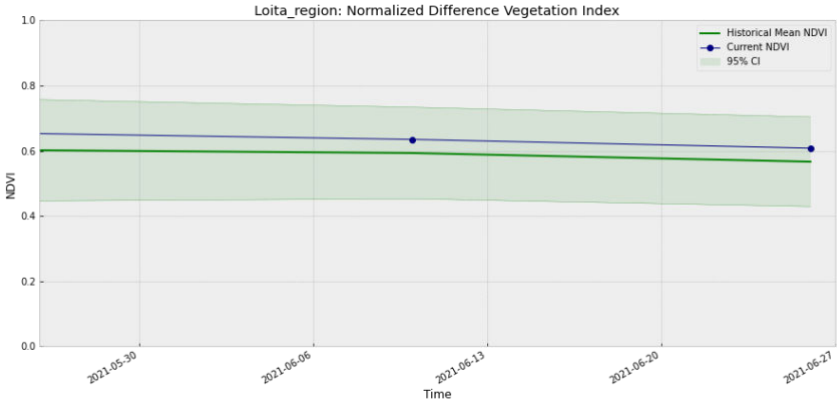
Greater Mara Ecosystem (GME)



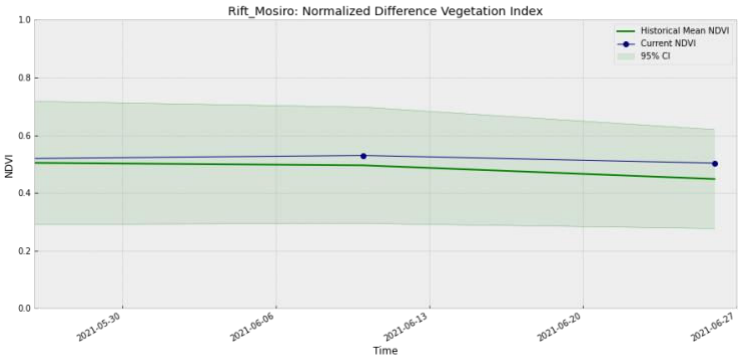
Mau Forest

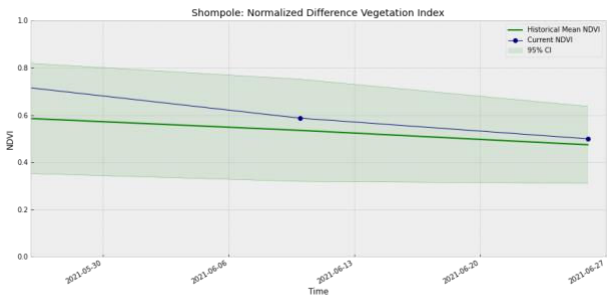


Loita

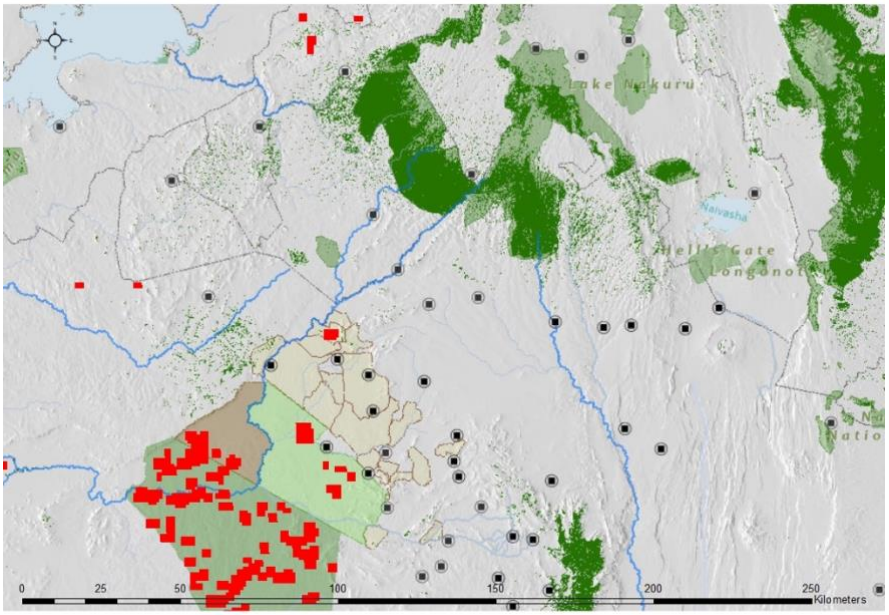


Rift Valley





ENVIRONMENT: Burn/Fire Areas



Red blocks indicate burn areas as measured by NASA's FIRMS dataset during the period June 1, 2021 – July 1, 2021. Accessed through Google Earth Engine.